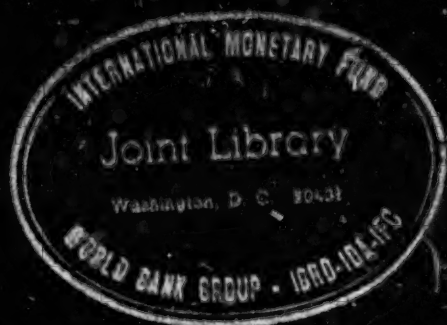


Lesotho First Five-Year Development Plan

1970/71—1974/75



Central Planning and Development Office

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Lesotho

First Five-Year

Development

Plan

1970/71—1974/75

INTRODUCTION BY THE HONOURABLE THE PRIME MINISTER

In introducing this our First National Development Plan, let me at the outset remove the misapprehension that the implementation and realization of a plan of this nature is the responsibility of the Government alone. This is not so. This plan calls for participation of all sectors from the humblest of us to the leaders in all spheres of our national life. It calls for the closest co-ordination of all activities relating to economic development.

Lesotho is facing a number of exceedingly difficult economic problems, the solution of which is crucial for the social and economic development of the country. The Government believes that there is a fair chance for these problems to be solved by conscious and disciplined struggle of the whole nation over a period of many years. The logical conclusion of this approach is the recognition that a Development Plan is necessary for the economic advancement of the country.

The purpose of the Development Plan, which incorporates the Government's ideology on growth, is to rouse the dormant national dynamism and to channel it towards the solution of the problem of the country's economic emancipation.

The assumption that Lesotho, being a small enclave within South Africa, would be more or less automatically developed as a result of the indirect influence of the strong expansionary forces in the neighbour economy has proved to be ill-founded. Lesotho remained insulated from the main stream of South African economic events. Rapid economic development in South Africa has not resulted in an expansion of the productive capacity in Lesotho; it only maintained the demand for Basotho labour from South Africa firms, mainly from mines. This demand had undoubtedly a number of important favourable effects for this country. In particular, it provided a source of employment and income for many thousands of workers who would otherwise have

remained unemployed or underemployed and at the same time has reduced substantially the population pressure on the meagre land resources of the country.

However, the abovementioned effects, important as they are, should not obscure the fundamental fact that Lesotho is becoming a reservoir of unskilled, cheap labour for South Africa, with little hope of creating an indigenous base for economic development. This situation will not change radically as a result of a spontaneous process. Change must be brought about by deliberate and well planned action, which will end stagnation and initiate a process of gradual expansion of the domestic productive base.

These views are not dictated by a sterile and narrow-minded nationalism. They follow from a realistic assessment of the facts and the prevailing economic trends. The alternative to planned development would simply be to surrender the economic future of the country to exogenous and entirely uncontrollable forces which have so far been inimical to the promotion of domestic sources of income and employment. The Government is decisively opposed to such a fatalistic attitude. Its intention is to do everything possible to build up a development momentum, which may eventually get the country out of the trap of economic backwardness.

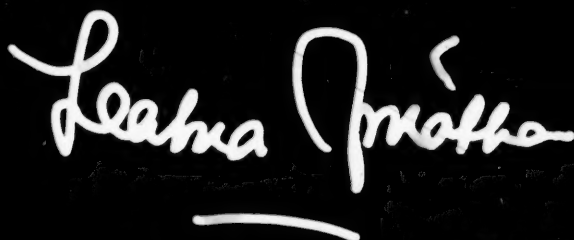
The Development Plan sets forth as clearly as possible the country's development objectives and targets and indicates the path to be followed for the achievement of these targets. A well defined development framework is needed to ensure consistency in government decision-making especially as regards sectoral policies, and to evaluate the government's performance in the process of plan execution. It will also help the various economic groups to set their part in the overall growth of the country. A clear understanding of the government's major development objectives and the assurance that the public and private sectors of the economy are not going to work at cross purposes are essential for securing the active participation of the people in carrying out the plan.

The Economic Development Plan gives an honest account of the main problems and weaknesses of the present economic and administrative structure and outlines a realistic programme for action, the application of which is expected to increase considerably the country's chances for economic and financial viability.

lity. We believe that this will be appreciated by foreign aid donors, who are naturally anxious to see that their assistance to this country is used in accordance with sound criteria based on clear development priorities and will thus be of most benefit to the Lesotho economy.

The five-year development targets are not unreasonably ambitious or unrealistic. The hope that the whole economy will emerge from stagnation is undoubtedly an optimistic one. But there is no reason why it should not be realised, if the plan's call for hard work is adequately answered by the people of Lesotho.

Accordingly, I appeal to all the people of Lesotho — to the leaders in Commerce, Trade and Industry, to the Chiefs, to the Public Officers — to make a special effort to play their part to the full in the implementation of this plan.

A handwritten signature in white ink, reading "Leabua Jonathan". The signature is stylized with a large initial 'L' and a long, sweeping underline.

Leabua Jonathan
Prime Minister of Lesotho

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PREFACE BY HIS MAJESTY THE KING

The achievement of independence a few years ago was a turning point in our history; it has widened our national horizon and ensured the right of the nation to determine its own destiny.

Economic and social development is now our next objective. The path to development is long and difficult. But we must follow it in order to improve our living conditions and create a better Lesotho for our children. Failing to achieve development means a continuation of the present conditions of poverty and unemployment, which may finally render our independence an empty and meaningless word.

It is from these reasons that we wish to express our great pleasure at the preparation of the Government's First National Development Plan. Its importance as a guide to the country's development needs no special emphasis.

We have every hope that all Basotho will subject their efforts and energies to the achievement of Lesotho's economic advancement, seek and seize every opportunity to translate our national aspirations into reality.



King Moshoeshoe II



1. GENERAL BACKGROUND

The Kingdom of Lesotho, which became independent in 1966 after nearly a century of British rule, is a small country entirely surrounded by the Republic of South Africa. It is the country of the Basotho people, who were brought together under the leadership of Moshoeshe the Great in the early part of the nineteenth century. It came under British protection in 1868 in response to a request from Moshoeshe.

The country rises from a plain at an altitude of some 5,000 feet in the west to mountains of up to 11,000 feet in the east, where the land drops steeply into Natal. Thus most of Lesotho's communications and outlets are to the west.

As a result of its mountainous character, much of Lesotho's area of 11,716 square miles is of little use agriculturally; a large part of the agricultural land is subject to erosion — severe in places.

The country is divided into nine administrative districts, each one under a District Administrator, who is responsible to the central government.

The climate in the lowlands is cold and dry in winter and hot in summer with occasional rain. The climate in the mountains is harsher, with colder, longer winters and cooler summers. There are substantial variations in the level of rainfall, both from one year to another and from one part of the country to another. These variations mean that the agricultural areas are subject to periodic droughts.

The population, which is almost entirely rural, is approximately 1 million, increasing at a 2.5% annual rate. About a half of it lives in the lowlands of the west, where densities are from 100 — 300 persons per square mile. The other half lives in the foothill and in the mountain areas which cover 85% of the country. A large proportion of the men (about 40% of male labour force) works in the Republic of South Africa.

There are only a few Europeans and Asians, who are mainly occupied in Government, trade and various missions. All land belongs to the Basotho people. Non-Basotho cannot own land, but they are granted occupancy rights for specific purposes.

The most important religious denominations are the Roman Catholic Church, the Lesotho Evangelical Church and the Anglican Church. As a result of the activity of the missions, the level of literacy is higher than in most African countries; about half of all persons over the age of 5 were recorded in 1966 census as being able to read and write.

PART I

**GENERAL ANALYSIS AND SUMMARY
OF THE PLAN**

2. THE STRUCTURE OF THE ECONOMY — PROBLEMS AND TRENDS

2.1. NATIONAL INCOME AND EXPENDITURE

2.1.1. Gross Domestic Product

National income estimates for Lesotho are available from 1964/65, but, due to difference in methodology, intertemporal comparisons as regards national income changes are not possible. These estimates can, however, provide a basis for the study of the economic structure.

The gross domestic product (at factor cost) for 1967/68, the latest year for which figures are available, was R55.6 m. The percentage composition of this product by major economic sector was as follows:

TABLE 1
Composition of G.D.P. by sectors, 1967/68

Sectors	Weight	
Agriculture	39.0	
Mining and Quarries	2.0	
Primary Sectors		41.0
Manufacturing	0.7	
Construction	1.7	
Secondary sectors		2.4
Services (including Government Services)	56.6	
Tertiary sectors		56.6
Gross Domestic Product	100	100

Source: Bureau of Statistics (Revised data)

The above figures show:

- (a) The tertiary sector, which includes government services, is relatively very large as is the case with many African economies.

- (b) Agriculture is by far the largest productive sector, and contributes about 2/5 to the G.D.P.
- (c) The secondary sectors are insignificant; manufacturing in particular is practically non-existent.

The limited contribution of the commodity producing sector to the G.D.P. makes the economic structure particularly imbalanced.

The "modern" sector is very small as reflected in the very small percentage (4,5% of G.D.P.) of income from profits. On the other hand the low degree of monetization of agricultural production (less than 30% of its estimated value for 1966/67), is indicative of the large size of the subsistence sector. Subsistence activities in general account for more than half of gross domestic product.

2.1.2. Gross National Product

The gross national product (at current prices) for the year 1967/68 is estimated at R62.4 million. The difference between gross national product and gross domestic product is mainly due to Lesotho's share from South African Customs Union (R3.4 million) and to migrant workers's remittance (estimated at R4.8 million).

According to South African estimates (based on information regarding the numbers of Basotho workers in South Africa and their average earnings)*, total earnings for 1965/66 amounted to 43 million, of which R29.4 million were in cash and R13.6 million in kind. It is difficult to check statistically the accuracy of these estimates. But there is no doubt that the order of magnitude of the total earnings of the Basotho migrant labourers is comparable with the Gross Domestic Product of the country. This shows the extent of Lesotho's dependence on employment opportunities found outside the country.

It is a matter of definition to what extent these earnings should be considered as a part of Lesotho's national income. But even if the part consumed in South Africa is excluded what is taken home (in cash or in kind) must be considerable and in any case much more than what is recorded in the statistics as "worker's remittances". This implies that the level of the gross national product may be seriously underestimated, due to lack of adequate statistical information. But it also indicates that the recorded level of the country's imports, which is crucial for the calculation of Lesotho's share from the Customs Union, is also underestimated.

On the basis of the abovementioned figures of G.N.P. and the

*Africa Institute of South Africa: National Accounts of Lesotho 1954/55 to 1965/66. Pretoria, 1969.

level of de facto population, the average per capita income is estimated at about R63.

2.1.3. Domestic Expenditure

Total domestic expenditure for 1966/67 was R69.8 million. This expenditure has exceeded both the Gross Domestic Product and the Gross National Product of the same year by 25.5% and 11.1%, respectively. The first percentage indicates Lesotho's general economic dependence from abroad and the second percentage shows the country's dependence on foreign aid, in particular.

The composition of domestic expenditure was as follows:—

TABLE 2
Composition of domestic expenditure 1967/68

	(R million)	Weight
Private consumption	54.6	78.3
Government consumption	9.4	13.3
Total consumption	64.0	91.6
Investment (including changes in stocks)	5.8	8.4
	69.8	100

The interesting fact is that the gross domestic product is barely sufficient to cover private consumption. Another important aspect of the structure of domestic expenditure is the very low share of gross capital formation.

2.1.4. Gross Fixed Capital Formation

Gross fixed capital formation for the period 1964/65—1967/68, is shown in the following table:—

TABLE 3
Gross Fixed Capital Formation, 1964/65 — 1966/67

By type of asset	1964/65		1965/66		1966/67		1967/68
	R million	%	R million	%	R million	%	
a) land development	0.1	3	0.2	4	0.2	3	
b) residential buildings	1.1	32	1.3	30	1.3	30	
c) other buildings and works	1.2	35	1.5	34	2.4	45	
d) transport equipment	0.5	15	0.7	16	0.5	10	
e) plant machinery and equipment	0.5	15	0.7	16	0.6	12	
TOTAL	3.4	100	4.4	100	5.3	100	5.8
Overall index	100		130		150		170

On the basis of the above figures, the level of fixed capital formation appears to have been increased considerably during the period in question. But the structure of investment expenditure by major assets remained practically unchanged. About 70% of this expenditure has been allocated to residential and other buildings and works, whereas the share of investment on commodity producing assets, such as machinery and equipment and land development, has been comparatively very low. On the other hand the distribution of fixed capital formation by investors, as given in the next table, shows that government is by far the most important investor. In fact, government investment is the only dynamic part of capital formation; the increase in the total level of investment over the three year period was almost equal to the increase of the government investment expenditure for the same period.

TABLE 4
Gross Fixed Capital Formation, 1964/65 — 1966/67

By Investor	1964/65 R million	%	1965/66 R million	%	1966/67 R million	%
African rural household	(0.4)	(11.7)	(0.4)	(9.0)	(0.4)	(7.5)
Other private	(1.3)	(38.2)	(1.4)	(31.8)	(1.4)	(26.4)
Total private	1.7	49.9	1.8	40.8	1.8	33.9
Government	1.7	50.1	2.6	59.2	3.5	66.1
TOTAL	3.4	100	4.4	100	5.3	100

The following points must be noted:

- (a) The percentage of gross capital formation to total domestic expenditure is very low (one of the lowest in Africa).
- (b) The structure of investment expenditure is heavily imbalanced, with emphasis on less productive assets.
- (c) The government is the principal investor in the country.
- (d) All investment expenditure is in practice financed from foreign sources (since total consumption is greater than G.N.P.)

There is thus much room for reshaping the structure of investment expenditure towards more productive ends. Special emphasis should, of course, be placed on reallocating the government expenditure on capital formation, which is the most important part of total investment expenditure. In view of the country's heavy dependence on foreign aid for capital financing, increasing the overall productivity of investment expenditure

through reshaping its structure seems to be a much more urgent problem to be solved than increasing the total level of investment.

2.2. AGRICULTURE

The following two sections contain an outline of the main features and problems of the agricultural production, which is the major local source of income for approximately 85% of the population.

2.2.1. Crop Production

Owing to the mountainous nature of the country, only 1,000,000 acres, i.e. 15% of its entire area, come under the plough. The remaining 5,000,000 acres are mountain pastures, steep slopes, rocky hillsides and deep gorges. About three quarters of the arable land is in lowlands and foothills (where also three quarters of the population live). 90% of the cultivated land is allocated to the three most important crops, viz. maize, sorghum and wheat. Maize in particular is the principal subsistence crop, accounting for more than half the entire arable land. Other crops are peas, beans, barley and oats.

Crop yields are generally very poor. Output of maize averages 2—3 bags an acre, compared with 30—35 bags per acre on irrigated experimental cultivations. As a result of low yields Lesotho has to supplement domestic production with considerable imported quantities of cereals, especially maize, in order to satisfy the population's needs.

The reasons for the low level of crop production are many: Adverse climatic conditions, viz. periodic droughts, frost and hail, variable rainfall during the critical period of cultivation; sandy soil with low fertility; lack of irrigation; shortage of labour suitable for heavy agricultural work, as a result of the already mentioned fact that most of the able bodied men (of the age group 18 to 49 years) are away in the Republic; primitive farming practices and lack of sufficient agricultural tools and implements; inadequate credit facilities and limited developments funds; fragmentation which has assumed great proportions, owing to the population pressure and to the land tenure system.

The land tenure system appears to be responsible for a number of major obstacles to the modernisation of the agricultural production. In particular:

- (a) it impedes the consolidation of scattered land holdings into larger and more efficient units;
- (b) it makes individual farmers reluctant to improve the land, as there is no security of tenure and

- (c) it makes the extension of agricultural credit difficult because of the lack of individual ownership.

The situation in the agricultural sector is further aggravated by the very high rate of soil erosion. This is the greatest single problem of agriculture. The high pressure of human and animal populations seems to be the main cause of accelerated soil erosion. This pressure results in:—

- (a) cultivation on sub-marginal lands and in particular on slopes that are too steep;
- (b) fragmented agricultural structure, which impedes the execution of effective soil conservation work;
- (c) overgrazing and destruction of the vegetation.

Poor agricultural techniques and injudicious land use in general are aggravating factors, which are also indirectly related to population pressure. Paucity of trees and occasional heavy rainfalls are additional causes of soil erosion.

Although much has been done during the last three decades to control the situation (dam building, tree planting, education etc.), soil erosion is still advancing at an alarming rate. According to certain estimates, almost half of the cultivated area is affected by soil erosion in various degrees. Unless present trends are radically changed, Lesotho may become a country unsuitable for any cultivation in about two or three generations.

2.2.2. Livestock Production

Almost 70% of the population in Lesotho are owners of livestock. Livestock production accounts for about 40% of the total contribution of the agricultural sector to GDP. The main livestock population is estimated at about 2,000,000 sheep, 900,000 goats and 400,000 cattle.

Livestock production is the principal domestic source of cash income. Exports of wool, mohair and other livestock products are worth about R3.0 million annually, i.e. three quarters of the value of the country's total exports.

The country's physical nature is suitable for livestock raising. However, the livestock industry is backward and stagnant. The way towards a radical improvement is blocked by a number of obstacles.

(a) Overstocking

The animal population — and in particular that of small stock — is far above the carrying capacity of the veld. This has led to overgrazing and the destruction of pastures, and is a major cause of soil erosion. It renders proper pasture management virtually impossible. This

problem is believed to be aggravated by the preference which the Basotho people have for quantity rather than quality of their livestock.

(b) *Uncontrolled Breeding*

This makes the improvement of stock very difficult.

(c) *Parasite Infestation*

Specially of internal parasites in small stock. Fortunately Lesotho is free from major epizootic diseases, as a result of high altitudes and the cold winters.

The work of the Ministry of Agriculture in the past has proved that considerable results can be obtained if the right improvement policy is applied. Livestock centres throughout the country provide breeding animals, veterinary services, dip tanks for ked eradication and sheds for the preparation of hides and skins. Progress so far has however been slow and inadequate. It is, clear that the situation calls for intensified and concerted efforts for many years in order to remove the above-mentioned obstacles and initiate a process of continuous improvement.

2.3. EMPLOYMENT

2.3.1. Accurate statistics about the size, distribution and rates of growth of Lesotho's labour force are not available. On the basis of projections of the data of 1966 population census and other information, the labour force for the year 1969 was estimated at 430,000 persons. The male labour force was estimated at 270,000. About 45% of the male labour force, approximately 120,000, were absentees, i.e. were seeking employment in South Africa. The migrant female labour force for the same year was estimated at 20,000 persons.

2.3.2. There is no detailed statistical information showing how the resident labour force was distributed among various occupations. It is however estimated that about 15,000 of the male labour force were employed in non-agricultural activities, mainly in the tertiary sector (including government services). The majority of the resident labour force was not in paid employment, but was engaged in subsistence agricultural activities.

The percentage distribution of the male labour force for the year 1969 appears to have been as follows:—

Employment in agriculture	48%
Paid employment in Lesotho	7%
Employment in South Africa	45%
	100%

These figures reveal the serious population pressures experienced by Lesotho; over six times as many men obtain jobs in the Republic as can get them inside Lesotho.

2.3.3. The great economic and social significance of the fact that almost half of Lesotho's labour force is at any time employed outside the country is undeniable. The contribution of migrant labour to the national income is a substantial one. This contribution generates demand for non-agricultural products and also strengthens the domestic savings potential for investment financing. This should make possible an expansion of domestic demand and productive capacity without waiting too long for the creation of an agricultural surplus. Relieving the pressures on the land from a rapidly growing population is another favourable aspect of the exports of labour to South Africa, allowing for greater flexibility in the development plans of Lesotho. In this connection, it is sufficient to say that the plan's emphasis on mechanization for raising agricultural productivity could hardly be applied under over-crowded labour conditions. Furthermore, the employment of many thousands of Basotho in the Republic of South Africa has greatly facilitated the mobilisation of labour away from the agricultural subsistence activities. Basotho are getting used to working for money and for improved standards of living. Hence, the problem of transferring labour from subsistence agriculture to non-agricultural productive activities, is not a particularly difficult one for Lesotho, as it seems to be for other African countries.

Finally, the experience and training gained by Basotho from their participation in modern production processes should also be taken into account. However, this factor should not be overestimated, since most of the labour force is employed in the mines and other occupations which do not usually offer many opportunities for developing technical skills and initiatives.

2.3.4. At the same time, the negative aspects of the large exodus of the Basotho labourers to South Africa can hardly be overemphasised.

First, this situation has created serious difficulties for Lesotho's agricultural development. Although the number of persons engaged in agricultural activities is still very large, the quality of labour is inadequate. Ploughing done by women and children is often nothing else than scraping the surface and yields are correspondingly low. The able bodied men are temporarily and discontinuously occupied in agriculture (for short periods between contracts), and this causes neglect and lack of interest. Under these conditions extension teaching can be expected to have very limited results.

An indirect effect of the present situation is the large number of school age children occupied in the agricultural sector.

This is a factor that seriously undermines the efficiency of primary education and the educational system in general.

The prospects of the country's income benefits from migrant labour are not favourable; stagnation rather than appreciable improvement should be expected, in the long run, because of the very low wages paid to Basotho workers. The conditions persisting in the South African labour market and in particular the lack of alternative employment opportunities in the labour supplying countries militate against wage rise for unskilled workers. Labour statistics in the 1966 census show that about 94% of the male and 90% of the female absentees to the Republic were reportedly below the primary school education. It is clear that these people can provide only unskilled labour services in an industrial country such as South Africa.

The social problems created by protracted absenteeism should also not be underestimated. According to data of the 1966 census, about 66%, of the persons employed in South African were married. However, as a result of labour conditions they could not live with their families. This is an extremely serious problem which tends to undermine the whole structure of family life in Lesotho.

In planning the country's economic future, all the above mentioned positive and negative aspects of the phenomenon of large scale labour migration to South Africa must be taken into consideration. But the prominent feature of the phenomenon, from the point of view of development planning seems to be Lesotho's heavy dependence on employment opportunities, which are found outside the country under unsatisfactory and uncertain conditions.

2.4. GOVERNMENT FINANCE

Government's budgetary position in the years 1967/68 to 1969/70 is shown in Table 5.

TABLE 5
Government Budgetary Position (in thousand R)

	1967/68	1968/69	1969/70
Local Revenue	5,260	5,653	9,013 *
of which Share under Customs Agreement	1,672	1,659	4,739 †
Recurrent Expenditure *	10,907	10,584	10,829
Deficit	5,646	4,931	1,816
Development Expenditure	3,303	3,248	1,766

* Excluding reimbursable expenditure

† Including income due under Customs Agreement but not received till 1970/71.

Table 5 shows that Lesotho is unable to meet her recurrent budgetary expenditure from her own revenues. Although revenue in 1969/70 benefited from increased receipts under the revised Customs Agreement with Botswana, South Africa and Swaziland, there was still a current deficit of R1.8 million — equivalent to nearly 17% of recurrent expenditure. This deficit persists in spite of the very severe restraints which have been applied to the growth in recurrent expenditure over the past quinquennium. Lesotho is thus dependent on the British Government for substantial amount of aid merely in order to balance her recurrent budget. This dependence is undesirable for several reasons. If it were allowed to persist for a long time it would be incompatible with genuine political independence. The recurrent budgetary deficit means that Lesotho has no budgetary resources of her own to devote to development, and is thus heavily dependent on foreign aid — a situation which limits her freedom of action in development policy. Thus even quite minor projects have to be submitted to potential donor governments or agencies—a process which is administratively burdensome and involves delays in implementation.

Over a half of local revenue consists of receipts under the Customs Agreement. This is an element over which the Lesotho Government has virtually no control since it depends on fiscal policies and rates of duty which are determined by the South African Government. On the side of expenditure, the largest single item is education, which accounts for nearly 20% of total expenditure (including reimbursable expenditure) and nearly 25% of local revenue. The greater part of this consists of grants to missions, — an element over which government in the past has had inadequate control. Recurrent expenditure on agriculture and economic infrastructure (i.e. mainly works) accounted in 1969/70 to under 16% of total recurrent expenditure.

Recurrent expenditure is equivalent to some 20% of GDP, and a considerably greater proportion of incomes outside the subsistence sector. One important element in this is the level of personal emoluments — especially of the more senior civil servants. These incomes are seriously out of proportion to both the average level of incomes and what the country can afford.

Development expenditure in 1967/68 and 1968/69 averaged some 22.5% of total government expenditure. This proportion fell to 13.6% in 1969/70, partly as a result of the completion of the IDA financed road programme and partly because of the suspension of British aid towards the end of the year. Since public sector investment is such an important element in total capital formation, the low rate of Government development expenditure is a matter of serious concern.

2.5. SAVINGS AND CREDIT

The main financial institutions in Lesotho are the two commercial banks, the Post Office Savings Bank, South African building societies and insurance companies, and various co-operative organizations, the most important of which are the Lesotho Cooperative Savings Society and the Credit Unions. All of these, except the Post Office Savings Bank and the cooperative societies, are controlled from outside the country.

The total level of personal savings is not known, but is probably not far short of R10 million. Of this total, only a fraction — possibly a third — is invested in Lesotho; the rest is exported to South Africa. Thus the financial institutions act in practice as a channel by which funds are transferred from Lesotho to South Africa. Lesotho is therefore in the difficult and undesirable position of being both an exporter of capital and heavily dependent on foreign aid for development.

The principal reason for this situation is the low level of effective demand for funds for investment inside Lesotho. There are also institutional and legal difficulties in the way of the local utilisation of funds. A central problem facing the country is thus how to create sound investment opportunities inside the country and how to overcome the institutional and other difficulties involved.

2.6. FOREIGN TRADE

Although there is no break down of Lesotho's foreign trade by countries of origin and destination, it seems certain that the bulk of this trade is with South Africa. As shown in Table 8, Lesotho has been characterized by large and increasing trade deficits. In the six-year period from 1961 to 1968, the trade deficit widened from R3.1 to R20.5 millions i.e. it has increased about six times.

TABLE 8

Foreign Trade (in thousand R)

	1961	1965	1966	1967	1968	% Change from 1961 to 1968
Imports	6,120	17,525	22,917	23,800	23,938	291
Exports	3,020	4,690	4,387	4,168	3,380	12
Trade deficit	3,100	12,835	18,530	19,632	20,550	563

This spectacular increase in the trade deficit, corresponding to an annual average of 30% has resulted from a rapid increase of imports combined with a rather stagnant export situation, during the same period. The exports/imports ratio declined from 50% in 1961 to 14% in 1968. In the last three years of the period the ratio of imports to gross national product was approximately 50%. This ratio becomes much higher, about 80%, if it is calculated on the basis of the money sector of the economy, i.e. after subtracting the income contribution of its subsistence sector. This shows clearly the strong orientation of the domestic market towards imports; it also reflects the fact that domestic production is inadequate to satisfy local demand, which is generated from three main sources, namely, the money incomes of civil servants, the incomes from migrant labour and the receipts from agricultural exports. The very high propensity to spend additional incomes on imported commodities creates a serious problem for Lesotho's economic development.

Table 9 shows the composition of imports by major commodity groups, for the year 1968.

TABLE 9

Composition of Imports 1968

	In thousand R	Composition
1. Food-Drink-Tobacco	5,361	22.4
2. Manufactured consumer goods	11,331	47.3
3. Live animals	226	0.9
4. Fuel, Lubricants chemicals etc.	3,243	13.5
5. Machinery and transport equipment	2,557	10.9
6. Other	1,220	5.0
Total	23,938	100.0

The table shows that imports are directed mainly towards satisfying consumer needs. A more detailed analysis shows that only a small part of imported commodities is used as inputs for production.

The structure of exports for the year 1968 is shown in Table 10.

TABLE 10

Composition of Exports, 1968

	In thousand R	% Composition
1. Cattle and other animals	1,242	36.7
2. Wool, Mohair	1,298	38.4
3. Hides and Skins	79	2.3
4. Wheat, peas and other food stuff	364	10.7
5. Diamonds	376	11.2
6. Other	21	0.7
Total	3,380	100

Livestock is thus by far the most important source of export earnings, with wool and mohair accounting for about 40% of the total.

Available estimates on the balance of payments for the financial years 1965/66 to 1967/68 are presented in Table 11; this shows that the large trade deficits account for the balance of payments deficits. U.K. financial aid, remittances from migrant labour and receipts from Customs Union covered about 71% and 67% of the balance of payments deficits for the years 1965/66 and 1967/68, respectively. The rest was covered by aid from other foreign sources, such as IDA, OXFAM, Freedom from Hunger Campaign etc.

TABLE II

Balance of Payments 1965/66, 1966/67, 1967/68 in R,000

	1965/66	1966/67	1967/68
Exports	4,832	4,364	4,212
Imports	— 18,730	— 18,431	— 23,894
Trade Balance	— 13,898	— 14,067	— 19,682
Services (net)	— 4,305	— 4,000	— 4,622
	— 18,203	— 18,067	— 24,304
Migrant workers remittance	4,396	4,484	4,800
Transfers (Persons) government aid, other)	11,607	12,969	13,500
	— 2,200	— 614	— 6,004

3. NATURE OF THE DEVELOPMENT PLAN

3.1. The first Five-Year Plan of Lesotho is characterized by the following structural features :

- (a) it is a preparatory and to a large extent an exploratory plan;
- (b) it is primarily a public investment plan;
- (c) it concentrates on the annual increment of labour force.

3.2. A Preparatory and exploratory plan

3.2.1. Although the main economic problems and trends in Lesotho are well known, there is little information concerning available resources and development potential in the various sectors. In particular, the non-agricultural productive sectors of the economy have with some exceptions been ignored in the past, mainly as a result of the traditional predominance of the agricultural sector and the relatively easy access of the Basotho workers to the South African labour market. The aim of the plan is the development of all potential sources of income and employment in the country. It must therefore draw attention to hitherto unexplored potentialities and prepare the way for their full exploitation. It is from this necessity that the preparatory and exploratory nature of the plan stems. The value and effectiveness of future development plans will depend on the degree to which the preparatory and exploratory role of the present plan is fulfilled.

3.2.2 The water resources of the country are a very important economic asset. However, the economically exploitable potential in this sector is not known. An important contribution to the knowledge of Lesotho's water resources is expected to be made by the U.N.D.P./SF feasibility study, which is undertaken by the World Bank. According to the agreed terms of reference: "the study will investigate the water resources of Lesotho to plan their development for the maximum benefit of Lesotho... Consideration will be given to the possible use of available resources to meet the need of agricultural, municipal and industrial development, and the generation of hydro-electric power, recreation and other purposes. The purpose of the scheme is to select and prepare an optimum scheme of water development in the light of the water resources of Lesotho".

3.2.3 A similar situation is faced with respect to mineral resources. The reconnaissance mineral surveys carried out in the past were inconclusive and more work is needed to determine the country's possibilities in diamonds and other minerals. Thus an extensive mineral survey covering the whole country is included in the present plan. This work will be primarily based on geochemical techniques, supplemented by geophysical techniques and orientation surveys when necessary.

3.2.4 The tourist development potential is also unknown. The nature of the tourist assets of Lesotho is clear. But the prospective demand for tourist services has not been fully investigated. As a result, investment policy for the promotion of this sector is still tentative. Special studies will be required before a firm tourism programme can be drawn up.

3.2.5 Industrial development also depends on the investigation of raw material supplies, labour potential, markets and other relevant factors.

3.2.6 Even in the agricultural sector, which is better known, much depends on the investigation of specific development possibilities and organisational arrangements. This is one of the purposes of the U.N.D.P. Leribe agricultural project, which is now under implementation. The project will, in particular:—

- (a) demonstrate the impact upon production and income that can be accomplished by an integrated approach and by the introduction of improved techniques and practices;
- (b) test the suitability of a semi-cooperative farm organisational system, designed to permit rapid increases of production without conflicting with the present system of land tenure.

3.2.7 The need for a systematic exploration of the development potentialities determines to a large extent the preparatory nature of the plan. The plan is also preparatory in other respects. It aims, in particular, at the creation of the pre-conditions for the introduction of the dynamic element of private initiative in the productive process. It also aims at a more development oriented readjustment of the country's administrative and educational machinery, the establishment of important development institutions, such as the Development Bank, and at strengthening the planning machinery and the statistical organisation.

3.3 A Public investment plan

The National Development Plan of Lesotho is primarily a public investment plan, because in spite of the efforts which

will be devoted to the promotion of private initiative, investment by Government and Public Corporations is expected to be — for the next five years — the main lever for economic development.

3.4. The Plan concentrates on the annual increament of labour

3.4.1. This is an important feature of the plan. Section 2.3 shows the major socio-economic implications of the employment of much of the labour force outside the country. The emigration of able-bodied men to South African is a serious obstacle to the development of the various domestic sectors. Even agricultural development cannot be achieved without a drastic improvement in the quality of agricultural labour, which now consists mainly of women, children and old men. High demographic pressures are thus combined with a shortage of labour. The opportunity cost of employing an unskilled male worker in Lesotho is more or less determined by the level of daily earnings in the South African mines or other occupations.

3.4.2. Thus the present massive labour exports can be reduced only by the creation of employment opportunities in the country which could secure daily earnings not much below the South African wage rates currently paid to Basotho workers. The wage rate is not of course the only factor to be considered. Domestic employment, associated with a normal family life and a familiar social environment and more favourable prospects for advancement might be more attractive to Basotho workers, even at relatively lower wage rates. But generally speaking, one would not expect that a Mosotho would be willing to work for much lower wage rate than he could earn in South Africa. The situation is, of course, different with women, for whom job opportunities in South Africa are very limited.

3.4.3. The planned development of the various economic sectors is expected to initiate a process of continuous improvement in the employment prospects of Lesotho. This process will especially gather momentum during the second half of the plan period. In view, however, of the large number of Basotho workers now occupied in South Africa and the natural rate of growth of the labour force, it would be unrealistic to expect that implementation of the policies designed for the next five years could reduce these numbers substantially. The government has, therefore, adopted a modest and realistic policy. For the next five years this policy concentrates on the annual increase of the labour force, which (estimated at an average of 4,000 males and 2,000 females) seems to be in line with the expected annual increase of the employment opportunities in the country. This will provide an indirect solution to Lesotho's almost entire present dependency on uncertain employment opportunities out-

side the country. If the annual increase of labour can be absorbed in economically sound employment opportunities in the country, the relative importance of this problem will be gradually reduced, in the long run, to such an extent that it will eventually cease to be a major problem. Moreover the continuous expansion of domestic employment opportunities will stimulate a repatriation flow.

3.4.4. Concentrating on the annual increase of labour does of course not mean that people to be employed in the country will come exclusively from the young generation; it does, however, imply an increased participation by the young in local employment. This has an important implication for the plan. It puts special emphasis on the need to remodel the country's educational edifice and improve and extend considerably the post-school training system. Education and training must infuse enthusiasm and create the capabilities which are important for the successful participation of the country's youth in the process of economic development.

3.4.5. The Government will not interfere with emigration by legal or similar restrictive measures. Such an approach would be uneconomic and for that reason doubtful as regards its effectiveness. The only acceptable policy is to develop economically sound employment opportunities in the country. To the extent that this policy falls short of its objectives, the natural outlet of labour exports will be left unblocked.

4. PLAN STRATEGY — OBJECTIVES AND TARGETS

4.1 The overall objective

The overall objective of the five-year plan is to lay the foundations for economic development and economic independence.

For Lesotho, economic independence and economic development are mutually inter-dependent. Lesotho is dependent on foreign countries for employment and incomes, and even for balancing its budget. Freeing the country from this dependence involves providing more jobs in Lesotho, increasing local incomes and raising more government revenue. For Lesotho, economic development is not only an end in itself — in overcoming poverty, malnutrition, ignorance and unemployment — but it is also necessary if she is to survive as a nation.

4.2. The major development targets

The major five year development targets, which are related to the above mentioned overall objective, can be summarized as follows:

- (a) To attain an average annual rate of growth of gross domestic product of not less than five percent.
- (b) To achieve a marked increase in productivity in the agricultural sector.
- (c) To promote as far as possible non-agricultural productive activities, putting special emphasis on small-scale indigenous industries, and to secure the economic, legal and institutional preconditions for a self-sustained development of these activities.
- (d) To prepare for the full exploitation of the country's water and mineral resources, and in particular to carry out the first construction phase of the Malibamatso River Project.
- (e) To accomplish a radical and government controlled development in education and post-school training, related to the needs for economic and social advancement of the country.

- (f) To create 10,000 — 15,000 new employment opportunities, mainly in non-agricultural activities.
- (g) To bring about drastic changes in public administration, so as to make its functioning more economical and its structure more development oriented.
- (h) To apply a realistic and systematic localisation policy, primarily in the public sector, in accordance with the supply of qualified local personnel.
- (j) To effect a substantial improvement in social services in general and health standards in particular.
- (k) To end the dependence of the government recurrent budget on external aid.
- (l) To strengthen the economic relation and co-operation between Lesotho and other African countries and in particular with the countries of the South African Customs Union.

4.3. The global rate of growth

A global annual rate of growth no less than 5% for the plan period seems to be a realistic expectation. This rate of growth has been arrived at from sectoral projections, which in turn are based on technical feasibility considerations and on the fulfilment of certain policy and investment assumptions. These projections indicate the possibility of a greater annual rate of growth, but 5% has been fixed as a minimum target.

On the basis of an estimated 2% rate of growth of the dejure population, a 5% rate of income growth will result in a 3% increase of per capita income on G.D.P.

4.4 Agricultural productivity

4.4.1. The highest priority, during the plan period, is given to increasing agricultural productivity substantially in both the crop and livestock sectors. The present very low productivity level is a major brake on the growth of the economy as a whole. With a stagnant agriculture, which accounts for about 42% of the Gross Domestic Product the rate of growth of the economy will be very slow, even if non-agricultural productive activities were to expand very rapidly.

4.4.2. Experimental evidence shows that agricultural productivity can be greatly increased by introducing better crop and livestock husbandry techniques. Since the available acreage of arable land must be considered more or less fixed for the plan period, there are only two ways to bring about a decisive improvement:

(a) an increase in yields;

(b) a shift in production towards more profitable crops.

During the five-year period, only a small fraction of the very substantial possibilities of such action can be exploited. Raising agricultural productivity from its present very low level is likely to be a difficult and slow process. Much depends on devising the appropriate channels of transmitting to the farmers new productive techniques and improved methods of management and marketing. Additional inputs such as credit and improved organisation will be needed.

The transformation of agriculture from a subsistence to a predominantly cash basis presents many intricate technical economic and social problems. However, as the causes of stagnation are progressively removed, the problem will become easier and the rate of growth of productivity will gain momentum.

4.5. Non-agricultural productive activities

4.5.1. Agricultural development alone cannot be the total solution. The limited agricultural resources of the country can provide gainful employment opportunities for only a decreasing proportion of the rapidly expanding labour force. In the long run non-agricultural productive activities, which are now at an embryonic stage, will become a major path to economic development. The development of non-agricultural activities is, therefore, an integral part of the long term development perspective.

The government will take vigorous steps to promote non-agricultural activities, in particular manufacturing and tourism. However, the country has little experience in these new fields and spectacular results cannot be expected during the plan period. The emphasis of policy is on securing the fundamental preconditions and on creating the appropriate development climate. The establishment in 1967 of the Lesotho National Development Corporation (LNDC) and the enactment of the Pioneer Industries Bill are two decisive steps in this direction. This policy, aiming at the introduction of the dynamic element of private initiative in the development process, has a special significance for this country, which has so far relied on the development initiatives of the public sector.

4.5.2. Within the policy framework for the development of non-agricultural activities, the highest priority is given to small scale industries.

The reasons for this will become clear from the following brief analysis.

(a) It has already been noted that the local market is strongly import-oriented and gives practically no stimulus to

local production. As a result of the high propensity to import the secondary income and employment effects generated by investment expenditure are practically insignificant. A way out of this situation is to reduce gradually the propensity to import through the expansion and diversification of domestic productive activities. Import substitution through local production, based on local or even imported raw materials is clearly possible in a number of cases. However, much work is needed for the identification of all the economically and technically possible cases of import substitution. The plan makes provision for setting up the appropriate machinery for systematic investigation and exploitation of these possibilities.

Production for import substitution implies, however, production for the small Lesotho market. Small-scale productive units, which are usually suited to limited market possibilities, seem therefore to be the practical solution.

The possibility of large productive units, which would produce both for local market and exports, cannot of course be ruled out entirely. The country is however unprepared to carry out many such industrial schemes in the near futures. For the successful establishment and operation of a large unit everything must be imported (including managerial and technical skills or even semi-skilled labour). It is therefore doubtful whether there would be any significant benefits to the country from large industrial project. The relevant question is not whether large units can operate efficiently in Lesotho, but whether their benefits to the country and their impact on overall development justifies their establishment.

Import substitution is also essential for relieving the inevitable development strains on the balance of payments which might otherwise become an insurmountable obstacle to any economic progress of the country.

- (b) Export-oriented small-scale units could also be established, especially in order to produce commodities satisfying foreign demand. Handicraft industries and skin, leather and weaving industries fall in this category. These units have on the whole been successful in the past and their prospects with respect to foreign demand are encouraging. A number of good quality local raw materials could form a sound basis for development in this direction.

- (c) Small scale industries are suited to the present conditions in Lesotho. Since they usually are labour intensive, they could make a substantial contribution to the solution of the employment problem.
- (d) The technical and managerial skills required for the operation of small productive units could be easily developed, through appropriate training and practical experience.
- (e) Finally small scale industries are adaptable to practically any environment. This would facilitate their wide geographical distribution and thereby the creation of small growth points all over the country. This combined with the seasonal slackening of agricultural employment, would make a significant contribution to maintaining higher and steadier income and employment levels in the rural areas.

4.6. Water Resources

4.6.1. Water is one of the basic resources of Lesotho. As has been already mentioned, its economically exploitable potential is not yet known with sufficient accuracy, but the investigations so far indicate that it might be very considerable. Water resources unlike mineral resources are of an inexhaustible nature. They could therefore become, through appropriate economic exploitation and protection, a permanent economic asset for the country.

Economic exploitation of the water resources is envisaged mainly in three directions:

- (a) irrigation;
- (b) sales of water to South Africa; and
- (c) production of hydro-electric power.

4.6.2. So far there has been some progress in irrigation. However, the recurrence of severe drought conditions makes it necessary for the government to intensify its efforts in establishing irrigation farming as far as possible and in developing management techniques for soils difficult to irrigate. Research carried out in experimental plots has shown that crop productivity can be raised substantially by applying the appropriate irrigation techniques. It is an important sectoral objective of the plan to expand the irrigable areas as much as possible during the next five years. Special attention will be paid to the co-ordination of soil conservation works and irrigation. In the past, protective dams, some of them very large, were constructed, without considering the full utilisation of the water. Out of approximately 800 existing dams only a few are utilized for irrigation purposes.

Many of these dams may however be suitable for small irrigation schemes. The construction of new dams without relating them, where possible, to the immediate improvement of agricultural productivity is a wasteful practice, which the country cannot afford. The need for utilising as far as possible the water potential of existing dams and co-ordinating soil conservation works with irrigation is evident. The plan makes specific provisions to that effect.

4.6.3. There has been substantial progress in the investigation of possibilities for the sale of water to South Africa. A UNDP/Special Fund project was approved in 1969 to study the total water resources and requirements of Lesotho, and in particular to investigate the feasibility of a scheme for the supply of water to South Africa. An interim report has been received which recommends such a project for further study and construction. This would involve the construction of a dam on the Malibamatso River near Kao for the supply of 150 million gallons of water per day through a tunnel to the Republic. The total cost of the scheme, which is planned to commence in 1972 and complete in 1977, is estimated at R28 million (excluding interest charges during the construction period). Such a project would not prejudice Lesotho's own needs of water for development.

The Malibamatso project which is a very large scheme within the economic context of Lesotho, will be of fundamental importance for the long-term economic development of the country. It is expected to become a significant domestic source for government revenue and for financing development projects in other sectors. In this connection it should be mentioned that the prospects of long-run industrial development, particularly in the northern districts of the country, are closely related to the scheme. But even during the construction phase of the Malibamatso project, the economy of Lesotho is expected to obtain indirect benefits from the large investment expenditure involved in the scheme.

4.7 Education and Training

4.7.1 The attainment of the development targets for the five-year period as well as of the long run objectives of socio-economic transformation of the country depend on the capability of the Basotho people to execute the development programmes. This can be secured only with education and training, which will provide in appropriate quantities and quality the skills required for economic development.

A country's population can indeed be its great asset or its worst liability, depending on the state of its education and training. Lesotho, a country poorly endowed with natural re-

sources, has to rely heavily for its economic advancement on the development of its human resources and the formation of human capital. Promoting education and training as a means of creating skills and aptitudes must therefore be a focal point in Lesotho's development strategy.

4.7.2. There are two important considerations that determine the government's policy on primary and secondary education. On the one hand the educational system should be geared towards improving both the quality and quantity of its output. With respect to quantity, a drastic increase in the number of final passes through primary and secondary schools is an absolute necessity. On the other hand the serious financial limitations confronting the country make it necessary to place emphasis on the maximum exploitation of the amount of resources already devoted to education rather than on their further expansion. A quarter of the total territorial revenue of the government is at present being absorbed by recurrent expenditure for the maintenance of the educational system.

Thus a policy of selective concentration of government efforts in primary education, coupled with a policy of determined expansion in secondary education, has been adopted for the five-year period. Emphasis is being placed on deepening educational work and strengthening the system's dynamism rather than on widening the educational base.

4.7.3. The building up of an appropriate educational edifice is a long term objective which goes hand in hand with the aim of social and economic transformation of the country. Meeting the short and medium term needs for skilled manpower, especially in the intermediate and lower levels, will mainly depend on systematic and intensive post-school training and education.

At the present phase of Lesotho's development the guiding principle with respect to post school training and technical training in particular is to link it as closely as possible to specific production and employment opportunities. This means that technical training as far as possible will be treated as a component of specific development projects rather than loosely associated with general prospects of development of the various economic sectors.

This will reduce substantially the cost of training programmes and minimize maladjustments and disappointments, which usually arise from producing too many or too few skills for a certain period of time. As, however, the local market for skilled labour grows, the need for such a direct relation between training and projects will gradually give way to more formal training education.

4.8. Employment Opportunities

The target of 10,000 — 15,000 new jobs over the five-year period is based on estimates of labour requirements for the planned expansion in agricultural and non- agricultural sectors and for carrying out the first construction phase of the Malibamatso River project. This target is a modest one, from the point of view of the capital required for the creation of new employment opportunities. The target figure is less than three quarters of the increase of the male labour force during the same period and about half of the total increase of the labour force.

4.9. Administration

It is a commonplace that without a reasonably competent administration there is no basis for planned development. Lesotho, having an acute shortage of enterprise in the private sector, has to rely mainly on the productive initiatives of the public sector for the solution of its development problems. Hence it is necessary to secure an administrative machinery capable of performing the role of the primary agent for development.

At present there are a number of serious administrative constraints. The inability of the administrative machinery to utilize fully and productively available financial resources in the past has been a particularly serious weakness. It is clear that the system does not possess the absorptive capacity for productive investment required for a rapid tempo of economic growth and it may become a major bottleneck for the country's development efforts.

In addition the functioning of the system is, as we have already noted, highly expensive and its cost is greater than the territorial revenue of Government.

It is therefore a high priority task to bring about such changes in the administrative machinery as will make its structure more development oriented, while at the same time keeping the cost of its functioning as low as possible. In view of the very limited financial resources for recurrent expenditure, it is particularly important to give priority to those administrative sectors which are expected to have a greater impact on economic growth. The salary structure must also be reshaped in order to become more equitable and more inductive to the development of administrative and technical skills. Strengthening inter-departmental and inter-ministerial co-ordination and communication is also needed.

Special emphasis is placed on strengthening the Planning Machinery and the Bureau of Statistics, and on the reorganisation

of the District Development Committees which are expected to play in future an important role in regional planning and development (see Section 5).

The situation calls for a re-orientation of government policies and a rethinking of established administrative patterns. However, decisions for radical changes cannot be taken without a thorough investigation of all aspects of the problem. The government will review carefully the overall structure of the administration, salaries and other emoluments, recruitment and promotion practices, improvement through incentives and better training, supervision and functional co-ordination etc. With respect to training in particular it is felt that the present programme needs to be revised and improved, both in objectives and content, in order to serve better its purpose of creating a more efficient and development oriented public administration.

4.10 Localization Policy

Government's policy is to localize the administration as rapidly as is consistent with administrative and technical efficiency. A localization programme will be applied but only in close relation to the availability of local persons with relevant qualifications and experience. Certain categories of posts are easier to localize than others. On the other hand, as development gains momentum it may become necessary to increase the number of expatriates in certain technical posts. This should not be taken as a deviation from government's long term objective.

As regards the private sector, the Government has made it clear that encouragement and support will be given to investors who will adopt effective training and localization programmes.

A detailed localization programme for the civil service will be drawn up by a Committee to be established under the Prime Minister. The Committee will be composed of representatives of the following departments: Central Planning and Development Office (CPDO) Cabinet (Personnel), Education and the University of Botswana, Lesotho and Swaziland, (UBLS).

A similar Committee will be established for the private sector (also under the P.M.), with representatives of CPDO, Department of Commerce and Industry, Education, Lesotho National Development Corporation, Chamber of Commerce and Lesotho Trader's Association.

4.11 Economic Infrastructure

The greater part of development expenditure in Lesotho since independence has been on the country's infrastructure, and

in particular on its road system. Not all this investment has, however, been fully justifiable in terms of its prospective benefits. Some road expenditure in particular has been of little short-term advantage, whatever its benefits may be in the long run. Moreover, since the country has lacked funds for the adequate maintenance of roads, there is a danger that roads which have been built will deteriorate and that the investment will be wasted.

It is therefore necessary to be more selective in approving future infrastructure projects than has been the case in the past. Priority will be given to projects whose benefits in terms of the encouragement of additional economic activity are clear.

Road expenditure will continue to be an important element in the total programme. The proposals in the present plan are, however, only tentative; a transport survey is being undertaken by the Transport Research Centre of the University of Stellenbosch, and a report is expected in 1971. A more definitive road programme will be drawn up in the light of its proposals.

Certain major prospective developments—the Malibamatso Water Project and the expansion of the diamond industry—are still dependent on future decisions, and their implementation must have implications for the infrastructure programme.

The infrastructure programme is of particular importance in terms of social services. Thus the provision of a basic minimum of water supplies in towns, and the programme of aiding village water supply schemes which are being carried out under Community Development, are essential parts of the public health programme, in addition to any relevance they may have for industrial development.

4.12 Health and Nutrition

An important target for the five-year plan is to improve the nutritional and health conditions of the population. Although such an improvement is an end in itself, it is also a pre-requisite for economic development, as essential as education and training, since healthy and properly fed workers are also more efficient. Government's objective is to improve the quality of medical services and expand them to a larger section of the population and in particular to rural areas. Special consideration is given to preventive medicine, which will be developed substantially over the five-year period.

4.13 Public Finance

4.13.1 The Government of Lesotho has inherited from the past a heavy administration with expensive services and a salary structure totally out of line with what the country can afford.

Recurrent budget expenditure is 20% greater than Government's territorial income. It is also high as a percentage of the country's gross domestic product. Some 18% of recurrent expenditure and almost all capital expenditure are covered by British grants. Although Lesotho's relative dependence on U.K. budgetary aid has been substantially reduced during the past two years, it still has serious problems.

It is not possible for the country to live indefinitely beyond its means and to depend heavily on another country for its day to day expenditure. Such a situation, if allowed to persist will lead to financial and political bankruptcy. It is therefore imperative both that government recurrent expenditure, as a percentage of total territorial revenue and the gross domestic product, should be reduced during the next five years, and that new sources of revenue should be developed, with a view to eliminating the budgetary deficit by the end of the plan period.

4.13.2. The government, being fully aware of the gravity of the country's financial situation, has already embarked upon a policy of self-restraint and more efficient deployment of its limited resources, in order to free the country gradually from its present situation. This policy is based on the following principles:—

- (a) To reduce, in the long run, the proportion of recurrent expenditure to the total annual resources of the government, so as to ensure that a larger proportion will be available for productive investment. This will make it possible to expand the local tax base through the increase of national income—and thus to improve the country's budgetary position.
- (b) To reduce the proportion of recurrent expenditure to G.D.P. and to government's territorial revenue.
- (c) To plan sectoral and interministerial allocation of recurrent expenditure in accordance with definite priorities, in order to maintain properly and further develop administrative services which are essential to development, and to cut down non-productive expenditure. This implies that an indiscriminate cutting of recurrent expenditure, irrespective of the nature of the particular services, will be avoided.
- (d) To phase major reallocations of recurrent expenditure over a period of time, so as to prevent a disruption of work and give sufficient time for the changes to be absorbed by the system.
- (e) To improve the standards of financial control and management at all levels and to ensure that money is

spent effectively on the purposes for which it has been appropriated.

- (f) To reshape the structure of the Budget in such a way that it becomes an effective instrument of plan implementation.

4.13.3 The elimination of deficits on recurrent account will not make the country independent of foreign aid. Although every effort will be made to mobilise local resources for development, capital for financing development projects will have to be provided primarily from foreign sources for many years to come. Indeed, the need for aid to finance development is expected to increase, as the absorptive capacity of the economy for productive investment increases.

4.14 Economic co-operation with other countries

Lesotho's economic problems could be eased through establishing appropriate economic relations and agreements with other African countries. The peculiar geographical position of the country, however, makes it necessary to direct attention primarily towards promoting economic relations with the countries of the South African Customs Union. Strengthening economic relations and expanding the fields of co-operation with Botswana and Swaziland is particularly important. Recent experience with the discussions on common problems, such as the budget and the future of the University of Botswana, Lesotho and Swaziland and the problem of the re-negotiations of the customs agreement with South Africa, have emphasized the urgency of creating machinery for closer co-operation and consultation. Lesotho will prepare specific proposals to the other countries in order to initiate discussions on this question.

The development targets could be classified into four operationally inter-dependent and mutually reinforcing categories as follows:—

- (a) development of the country's productive capacity;
- (b) human development;
- (c) institutional development;
- (d) elimination of the government's dependence on the foreign aid for recurrent expenditure.

The pace of development of productive capacity and the elimination of the government's dependence on foreign aid for recurrent expenditure depend greatly on the dynamism of the human factor and on the capability of the administrative machinery. At the same time both human and institutional developments are deeply affected by the degree of success in the productive sector of the country.

Owing to the present state of statistics and the inadequacy of sectoral and regional research, a number of important development problems have not been sufficiently investigated. Furthermore, the manpower implications of the country's development for the five-year period cannot be fully determined at present. It is, however, hoped that the systematic exploratory approach adopted in the present plan will lead to the right answers, which will be taken into account in the revisions of the plan and the formulation of its annual segments.

5. ADMINISTRATIVE FRAME FOR PLANNING AND PLAN IMPLEMENTATION — RESEARCH

5.1. The Government of Lesotho accepts development planning as a method of co-ordinating and integrating all government policies in order to achieve clearly identified social and economic objectives, and of avoiding policy inconsistencies and wastage of scarce physical, financial and human resources. Further, government intends to make administration more effective and development-oriented, to streamline its operations and to realise some cost savings in terms of time, effort and money.

The Cabinet and the Minister responsible for Planning and Development have the political and administrative responsibility for ensuring that economic development proposals have been properly examined before they are taken to Parliament for acceptance. Equally the Cabinet and Minister responsible for Planning and Development are politically and administratively responsible for ensuring that economic measures accepted by Parliament and/or the National Assembly are carried out by the responsible administrative unit.

5.2. Central Planning and Development Office

A Central Planning Authority now called Central Planning and Development Office (CPDO) was established in Lesotho in 1967. The CPDO is mainly responsible for:

- (a) formulating and revising long term development plans and coordinating sectoral programme into medium term and annual development plans;
- (b) recommending policies, measures and machinery required in order to mobilize financial, material and human resources for implementing development plans;
- (c) maintaining a continuous review and evaluation of progress on development plan implementation, identifying factors which are retarding or may retard development and dealing with them in collaboration with responsible Ministries;
- (d) co-ordinating requests for and use of foreign assistance;
- (e) conducting or arranging for research into the growth

potential of the economy of Lesotho and undertaking research when necessary;

5.3. Budget and Economic Planning Committee

The main functions of this Committee are:

- (a) To consider development proposals submitted by the Planning Office;
- (b) to arbitrate on disagreements between CPDO and any government agency;
- (c) to consider recurrent Budget proposals of all Government Departments as processed and submitted by the Ministry of Finance;
- (d) to examine the recurrent budget in relation to the Development proposals submitted to the Committee by the Director of Planning in order to ensure that the budget is an instrument of plan implementation;
- (e) To review progress reports on plan implementation, to invite the Government's attention to any bottlenecks which are impeding the process of implementation and obtain the necessary remedial directives.

5.4. National Planning Consultative Council

No plan can be realistic without taking into account the people who will implement it or who may be affected by its implementation. Hence there is a need for consultation and co-operation between the Government and the private sector on economic and social problems and their solutions. To facilitate this Government will establish a National Planning Consultative Council consisting of representatives of National Groups and Associations involved in economic and social activities together with individuals whose qualifications, training or experience can make a valuable contribution.

The Director of Planning and Development will be the Chairman of the Council and the Planning Office will act as its Secretariat. At the meetings of the Council Permanent Secretaries and Heads of Departments will be in attendance to give the Council up-to-date information on planned programmes and implementation of departmental projects. They will also take note of the views of the Council.

The Council itself may submit proposals on development activities which the private sector intends to undertake and would like to see reflected in the National Plan.

5.5 Sectoral Programming Units

In order to strengthen sectoral planning and plan implementation the Government has decided to establish Programming Units in the various Ministries.

The functions of these units are:

- (a) to assist the Departments of the Ministry in the preparation and implementation of development projects;
- (b) to combine and integrate projects and proposals of the Ministry into sectoral programmes for inclusion in the medium term plans;
- (c) to submit at regular intervals progress reports to the Central Planning and Development Office on the physical and financial implementation of annual development projects and the national plans;
- (d) to prepare applications for technical assistance personnel and equipment and to advise the Permanent Secretary on their effective utilization;
- (e) generally to help the Ministries to co-ordinate their own activities internally and advise the Permanent Secretary on the best ways of implementing the Ministry's programmes.

These programming units will be the main channels of communications between Central Planning Office and the operating Ministries.

5.6. Project Review Committees

For ensuring the proper examination and evaluation of development projects, Project Review Committees will be established at the Ministries. These Committees will be responsible for appraising the technical aspects of projects and indicating any points requiring elucidation, more information or modification. Construction schedules, adequacy of administrative structure of the project and qualifications and availability of persons required, will be examined by the Project Review Committees. This scrutiny will ensure that projects have been fully worked out and prepared on sound lines or that they should be modified to qualify for inclusion in the sectoral programmes.

The Project Review Committees will be composed as follows:
Chairman: Permanent Secretary or his deputy;

Members: Heads of departments, technical officers, representative of Programming Unit.

In view of the importance of the Ministry of Agriculture in development planning, three Projects Review Committees will be established i.e. one for each of the major sectors: Livestock, Crop Production, Soil Conservation and Irrigation.

Two Project Review Committees will be established in the Ministry of Health and Education for clearing health and education projects respectively. One Project Review Committee will be established in each of the other Ministries.

5.7. Constructional Capacity Committee

Studies of the development activities of the Lesotho Government during the last three years have made it clear that the limited constructional capacity of the Ministry of Works is a serious constraint on the execution of the annual development plans, and on Lesotho's absorptive capacity for foreign aid. In order to improve the Ministry's capacity to execute more development projects, a Constructional Capacity Committee has been established at the Ministry of Works. The main functions of the CCC are to consider constructional problems relating to specific projects and to suggest means and policies for removing bottlenecks. The recommendations of the CCC will be passed on to the Programming Units of the Ministries and offices represented in the Budget and Planning Committee.

5.8. Area Programmes and their co-ordination with National Plan.

It is the policy of the Government to consult as much as possible with persons and groups of persons in the different regions and/or districts of Lesotho. District Consultative Committees will be established at district level. They will co-ordinate and follow up government programmes in the districts, suggest priorities and report on local conditions and difficulties related to project implementation.

Each district shall be kept continually and fully informed by the Programming Units of the activities in the fields of economic and social development. District Development Secretaries will be appointed to coordinate development work in the districts and to provide a link with the CPDO.

5.9. Bureau of Statistics

Strengthening the Bureau of Statistics is an important precondition for better planning and plan implementation. At present, lack of adequate office accommodation, computing facilities and trained personnel prevent this office from playing its role properly. To remedy this situation provision is made in

the plan for office extension, an increase of staff and field personnel, more office machines and other computing equipment.

Discussions are under way between the governments of Botswana, Lesotho and Swaziland and the University for the establishment at UBLS of a Department of Statistics. UNESCO and USAID are considering giving assistance for the implementation of this project.

The establishment in the Ministries of Programming Units, which will also be responsible for data collection, will lead to a considerable improvement of the whole system of statistical information. The work, if carefully designed, could solve at least partially the problem of the insufficiency of field personnel of the Bureau of Statistics. The Bureau will give advice to P.Us as to the appropriate procedures and practices to be applied in each Ministry for data collecting and processing. This arrangement could therefore become an inexpensive way of expanding the network of statistical information throughout the administrative machinery.

The CPDO and the Bureau of Statistics will work in close and more systematic co-operation. The CPDO will prepare a detailed list of the statistical data required for planning, indicating also the most suitable form for these data and the required improvements in the present statistical output. This will be used in drawing up an extended programme of work by the Bureau of Statistics.

5.10 Economic and Social Research

Social and economic research is a basic requirement for sound planning. Progress comes about not merely as a result of particular government policies or investment; the whole body of the people must be involved if there is to be a genuine breakthrough in the Basotho economy. And this involvement may be hampered or even completely inhibited by social and economic factors which may easily be overlooked.

The development programme has necessarily been drawn up against a background of ignorance concerning many major economic and social elements in the country's situation. Thus in agriculture, whereas there has been research and investigation into the more technical aspects such as soils, fertilisers, seed varieties and so on, little has been done on the economic and social problems. Virtually nothing is known for example about the response of the farmers to extension agents, the relation of soil conservation works to the village structure and economy, the social and economic reasons for the attitude of the people to livestock, and the whole complex impact of labour emigration on the village.

There are similar gaps in knowledge in other basic sectors. Thus no study has been carried out of the effects of education in Lesotho, or of the factors influencing the degree of success or failure of Basotho entrepreneurs. A study in depth of the social and economic background of the cooperative movement is long overdue.

The Central Planning and Development Office will work out a programme of research on economic, social and development problems. Close liaison will be maintained in formulating and implementing the programme with the University of Botswana, Lesotho and Swaziland and with UN research agencies. The results of any research will be published by C.P.D.O.

6. SUMMARY OF THE PLAN

6.1 Tables 12-15 summarise the capital and Government recurrent expenditure of the 5-year development plan.

The total of R28.8 million of capital expenditure will be mainly Government investment. In addition to this, it is estimated that about R25 million will be the cost within the plan period for the construction of the Malibamatso River Dam and another R3 million will be LNDC's investment from its own funds. This latter investment is expected to attract considerable foreign investment from private firms. Thus, total capital expenditure in both the public and private sectors over the five year period is estimated of the order of R60 million.

6.2. Recurrent expenditure generated by the plan will cause only a moderate annual increase in Government expenditure, which is consistent with the plan's target to balance the Government budget by the end of the five year period.

6.3. The plan puts major emphasis on agriculture. Out of the R28.8 million programme, R6.5 million (or 23% is allocated to agriculture.

The importance of agriculture is also reflected in its expected contribution to the plan's income target. Thus, out of a 5% planned annual rate of growth of GDP 3.1% will be contributed by this sector.

6.4. R16.7 million, i.e. about 58% of the R28.8 million programme, will be spent for improving and further expanding the country's economic and social infrastructure. This highlights the preparatory nature of the plan, i.e. its emphasis on creating the preconditions for a sustained long-term development process.

6.5. The low level of capital investment for the first year of the plan is a result of the disruptions in the flow of aid, during the first six months of 1970. Owing to lack of an adequate stock of projects, the level of capital investment during the last year of the plan period is also comparatively low. It is expected that as more information about development possibilities and projects is collected, the annual segments of the plan will be expanded substantially.

6.6 As shown in chapter 16, there are a number of possible sources (bilateral or multilateral) for financing the plan's capital

investment. The effective utilisation of these sources will depend mainly on the performance of the planning and plan implementation machinery. Preparing sound projects and improving the administration's capacity for their execution are particularly important. The CPDO will determine the kind of financial assistance required for the various projects and ways of obtaining it. New sources of financing will also have to be explored. Furthermore, it will be a priority task for CPDO to prepare a 2-year program of technical assistance, which will define and co-ordinate the technical assistance requirements generated from the plan for the period 1971/72 — 1972/73.

6.7. The plan's main objectives are to increase agricultural productivity, to improve and further expand the country's economic and social infrastructure and to balance the Government's budget. Their realisation will enable Lesotho to achieve a steadier pace of development and shift gradually towards non-agricultural productive activities. At the same time the mobilisation of domestic private savings and the expected substantial increase of the Government's territorial revenue as a result of a higher income from Customs Union and from the sale of water to South Africa, will greatly improve the prospects of development financing from internal sources. This will depend on the success of the policies proposed in the plan as regards Government recurrent expenditure.

6.8. A list of major policy measures and institutional reforms required for the achievement of the plan's objectives can be found in the Appendix.

TABLE 12
5—Year Development Plan: Capital Expenditure By Sector
(In R'000)

Sectors	1970/71	1971/72	1972/73	1973/74	1974/75	Total	%
1. Agriculture and Co-operatives	502	1,322	1,521	1,634	1,561	6,540	22.70
2. Industry (LNDC Factory Area Development)	100	550	150	200	200	1,200	4.28
3. Commerce	—	142	76	23	23	264	.91
4. Tourism	—	54	65	65	65	249	.86
5. Mining	—	291	120	131	—	542	1.88
Economic Infrastructure							
6. Roads	518	842	1,483	1,982	1,577	6,502	22.57
7. Civil Aviation	17	155	22	22	22	238	.83
8. Electricity	70	70	70	70	70	350	1.21
9. Post and Telecommunications	270	275	86	22	17	670	2.33
10. Plant Pool	—	100	355	—	—	455	1.58
Sub-Total (6—10)	875	1,442	2,016	2,096	1,786	8,215	28.52
Social Infrastructure							
11. Education and Training	231	776	1,581	1,211	265	4,064	14.11
12. Health	160	137	214	162	157	830	2.88
13. Water Supply, Sewerage, Sanitation	249	471	1,075	811	744	3,350	11.63
14. Sports	—	—	70	80	100	250	.87
15. Minor Urban Services	3	26	19	19	19	86	.30
Sub-Total (11—15)	643	1,410	2,959	2,283	1,285	8,580	29.79

TABLE 12 (Continued)

Sectors		1970/71	1971/72	1972/73	1973/74	1974/75	Total	%
<u>General Government Services</u>								
16. Police		100	135	122	126	150	633	2.10
17. Prisons		46	46	69	33	22	216	.75
18. Office Buildings		190	359	201	465	252	1,467	5.09
19. Public Service Housing		105	308	54	54	55	576	2.00
20. Government Printer		70	6	—	—	—	76	.26
21. Broadcasting		8	27	60	15	8	118	.43
22. Information		—	—	11	8	—	19	.06
23. Statistics (equipment, surveys and censuses)		—	38	38	14	17	107	.37
Sub Total (16—23)		519	919	555	715	504	3,212	11.06
TOTAL		2,639	6,130	7,462	7,147	5,424	28,802	100.00

TABLE 13
5—Year Development Plan: Capital Expenditure By Ministry and Other Government Agencies (In R'000)

Sectors	1970/71	1971/72	1972/73	1973/74	1974/75	Total
Agriculture						
Finance	502	1,322	1,521	1,634	1,561	6,540
Education and Health		433	196	154	23	806
Works	301	913	1,865	1,453	522	5,144
Interior	739	1,376	2,876	2,750	2,384	10,125
Prime Minister's Office	31	63	56	56	56	262
L.N.D.C.	519	919	555	715	504	3,212
Lesotho Electricity Corporation	100	604	215	265	265	1,449
Post and Telecommunications	70	70	70	70	70	350
	287	430	108	44	39	908
TOTAL	2,639	6,130	7,462	7,141	5,424	28,802

TABLE 14

5-Year Development Plan: Recurrent Expenditure by sector (In R'000)

Sector	1970/71	1971/72	1972/73	1973/74	1974/75	Total
1. Agriculture and Co-operatives	146	278	316	372	411	1,523
2. Tourism	—	25	26	28	31	110
3. Roads	90	115	145	180	220	750
4. Education and Training	20	128	416	526	652	1,742
5. Health	—	183	225	252	279	939
6. Broadcasting	—	4	7	9	6	26
7. Information	—	15	21	30	31	97
8. Statistics	—	—	17	16	17	50
TOTAL	256	748	1,173	1,413	1,647	5,237

TABLE 15
5-Year Development Plan: Recurrent Expenditure by Ministries and Government Agencies (in R'000)

	1970/71	1971/72	1972/73	1973/74	1974/75	Total
Agriculture	146	278	316	372	411	1,523
Finance	—	25	43	44	48	160
Education and Health	20	311	641	778	931	2,681
Works	90	115	145	180	220	750
Prime Minister's Office	—	19	28	39	37	123
TOTAL	256	748	1,173	1,413	1,647	5,237

PART II

SECTORAL ANALYSIS

7. AGRICULTURE

7.1 CROP PRODUCTION

7.1.1. Present Situation

In Lesotho land resources are limited to approximately 1,000,000 acres of arable land, although up to 1,200,000 acres may be cultivated. The allocation of arable land among the various crops, the quantities produced and their respective values for 1969/70 are shown in table 7.1.

The cultivation of maize alone occupies about half of the arable land. The cultivation of maize and sorghum together cover about 65% of the arable land, whereas their contribution to the total (gross) value of the crop production is only 52.4%. The remaining of the arable land is allocated to the production of other crops which contribute about 47.6% of the gross value of crops. Thus, at present, nearly two thirds of the land is used for crops which are not only of low money value but also of low nutrient value.

Low productivity is the fundamental problem in crop production. Generally, the average yields per acre for maize, sorghum, peas and beans are 2 to 3 bags (of 200 lbs), and 3 to 4 bags for wheat.

Low yields are caused by a variety of factors some of which, such as soil erosion, land tenure system, migrant labour and poor cultivation practices have already been mentioned. A few more can be mentioned here.

- (a) Poor infertile soil, lacking plant nutrients and appropriate structure which makes seed beds unstable to rain. Very little manure or crop residuals are returned to combat this. Cattle dung is used as a fuel because fire wood is very scarce in Lesotho.
- (b) Very little use of fertiliser.
- (c) An erratic rainfall regime, which can vary from 18" to 35" per annum in the lowland areas.
- (d) Very limited application of irrigation or drainage; many soils water-log easily.
- (e) Weed infestation, due to lack of herbicides or labour or because of weeding too late.

- (f) Pests and diseases.
- (g) Roughly prepared seed beds and late sowing, partially due to the weakening of oxen by winter privation.
- (h) Seeds of low germination capacity and untrue to type, mixed with weed seeds.
- (i) Monoculture, which aggravates weed, pest, and disease problems.

As a result of low productivity, the contribution of crops to the total value of the country's exports is insignificant, while at the same time large sums are spent annually for the importation of considerable quantities of cereals and pulses for local consumption.

The average quantity of maize imported annually is estimated at 300,000 bags (which is about 25% of local production) and costs approximately R1,200,000. The value of imported wheat and wheat products is about R800,000, net of wheat exports. Sorghum production also has to be supplemented considerably in order to satisfy local consumption (See table 7.14).

TABLE 7.1

Estimates of Crop Situation in 1969/70

Crops	Acres	% of total acreage	Average Yields in bags per acre	Total production in bags	Price per bag (R)	Gross Value of production (R000)	% of Total gross value
Maize	420,000	45.5	2.5	1,050,000	4.0	4,200	36.3
Sorghum	185,000	20.0	2.5	462,000	4.5	2,079	17.9
Wheat	215,000	23.3	3.0	645,000	5.0	3,225	27.8
Peas	47,000	5.1	2.0	94,000	9.0	846	7.3
Beans	30,000	3.2	2.0	60,000	10.0	600	5.2
Barley	12,000	1.3	3.0	36,000	5.0	180	1.5
Oats	5,000	0.5	—	—	—	35	0.3
Veg/Fruits Potatoes	8,000	0.9	—	—	—	400	3.4
Other	2,000	0.2	—	—	—	40	0.3
	924,000	100.0		2,347,000		11,605	100.0
				Less estimated inputs (import content)		1,800*	
				Value added		<u>9,805</u>	

* 15% of the Gross Value

7.1.2. Policy objectives and production targets

The long term development objective for crop production is to transform crop farming from its present subsistence basis to the production of cash crops for import substitution and export.

With a more or less fixed total quantity of land available for cultivation the improvement approach is the only one left for an increase of output in the crop sector. Land reclamation is expected to make only a marginal contribution to the total acreage of arable land in the next five years.

As already noted, improvements in crop production could be brought about in two ways:

- (a) through an increase in the crop yields;
- (b) through a shift in the production towards high value crops such as (winter) wheat, peas and beans.

Experimental evidence shows that in both cases there is a great economic potential, which could be exploited by an adequate improvement policy. However, technical and financial considerations had to be taken into account in determining a set of feasible policy objectives and crop production targets for the 5-year period.

These targets for the end-year of the period are as follows:

- (a) to increase the (gross) value of crop production by 75%;
- (b) to increase the acreage allocated to cash crops by 30%;
- (c) to improve substantially the country's import-export position with respect to crops, and in particular to achieve self-sufficiency in the staple crops — maize and sorghum;
- (d) to investigate the suitability of mechanisation methods, under the country's special social and ecological conditions; and
- (e) to test the compatibility of the land tenure system with a rapid expansion of agricultural productivity.

In order to get conclusive evidence with respect to objectives (d) and (e), a special project has been designed (see 7.1.9). This project will be jointly financed by UNDP Special Fund and the Lesotho Government.

The production targets for the year 1974/75 are shown in table 7.2.

From a comparison of tables 7.2 and 7.1 it can be seen that the total acreage for maize and sorghum will be reduced at the end of the period. This reduction, however, should not involve a

lowering of production levels, which are expected to increase for both maize and sorghum by 44.7%, respectively (see table 7.3), as a result of improved yields. It has been assumed that average yields for these crops will increase from 2.5 to 4 bags per acre, i.e. by 62.5%.

The land resources which will be released (and the expected slight increase in these resources) will be allocated to cash crops, as indicated in table 7.2. Thus, the total acreage for crops other than maize and sorghum will increase from 320,000 acres to 460,000 acres, i.e. by approximately 44%.

The expected increases in the production of maize and sorghum are adequate to secure self-sufficiency or near self-sufficiency, in view of the expected continuous changes in the nutritional patterns in the rural areas towards a more balanced diet.

These targets are intended to describe an average year; actual production will continue to vary substantially as a result of climatic and other factors.

It must be noted that, although every effort will be made to improve irrigation farming, the greatest importance will be attached to the improvement of dryland farming, which owing to the country's conditions, will have to be applied to more than 95% of arable land.

The achievement of targets presupposes that considerable efforts will be made by the Ministry of Agriculture and its Extension Services in particular. The presentation to the farmers of the general principles involved in the Ministry's improvement policy and the transfer of knowledge of the technical and economic aspects of crop production require an efficient and adaptable extension work. The 5-year development plan has entrusted to the extension agents the difficult and crucial role of ensuring the active participation of the farmers in the implementation of the agricultural development objectives.

The most important technical and economic preconditions for the planned improvement of crop production are discussed in subsequent sections.

TABLE 7.2
Crop Production 1974/75 (Targets)

Crop	Acreage	% of Total acrage	Yields (200 lbs)	Total production (Bags)	Price Per bag (R)	Gross Value of prod. (R000)	% of Total gross value
Maize	380,000	37.6	4	1,520,000	4	6,080	29.7
Sorghum	170,000	16.8	4	680,000	4.5	3,060	15.0
Wheat	315,000	31.2	4.5	1,418,000	5	7,090	34.6
Peas	67,000	6.6	3	201,000	9	1,810	8.8
Beans	40,000	4.0	3	120,000	10	1,200	5.9
Barley	16,000	1.6	3.5	56,000	5	280	1.4
Oats	10,000	1.0				180	0.9
Veg/Fruits Potatoes	10,000	1.0				760	3.7
Other	2,000	0.2				40	
TOTAL	1,010,000	100				20,500	100

Less inputs (import content) •

Value Added

4,000

16,500

• 20% of the Gross Value

TABLE 7.3
Crops: Changes in Acreage, Gross Value and Production
From 1969 to 1975

	Acreages			Value			Production
	Absolute changes	Total % change	% Change annually	Absolute changes (R'000)	% Change	% Change annually	
Maize	-40,000	- 9.5	- 1.83	+ 1,880	44.7	7.6	470,000
Sorghum	-15,000	- 8.8	- 1.70	+ 980	47.1	8.0	218,000
Wheat	+100,000	+ 46.0	+ 7.90	+ 3,865	119.2	15.8	773,000
Peas	+ 20,000	+ 42.5	+ 7.35	+ 965	114.2	15.6	107,000
Beans	+ 10,000	+ 33.3	+ 5.9	+ 600	100.0	14.9	60,000
Barley	+ 4,000	+ 33.3	+ 5.9	+ 205	365.0	—	41,000
Oats	+ 5,000	+100.0	—	+ 155	414.	—	—
Other Crops	+ 2,000	+ 20.00	—	+ 350	87.5	—	—
	86,000	9.3	—	9,000	78	—	—

7.1.3 Geographical Distribution

The geographical distribution of various crops will be determined by systematic land use planning investigations. Table 7.4 gives a tentative distribution based on past experience and observations relating to yields, rainfall, suitability of soils and length of growing seasons.

TABLE 7.4

Geographical Distribution of Crops, 1975

	(Acres)			
	Lowlands and Border Lowlands	Foothills	Mountains and Orange River Valley	Total
Maize	300,000	60,000	20,000	380,000
Sorghum	90,000	40,000	40,000	170,000
Wheat	120,000	65,000	130,000	315,000
Peas	20,000	10,000	27,000	57,000
Beans	30,000	10,000	—	40,000
Other Crops	28,000	10,000	10,000	48,000
TOTAL	588,000	195,000	227,000	1,010,000

7.1.4. Fertiliser Programme

A. An important precondition for the achievement of the planned production targets is the extensive use of fertiliser (mainly superphosphate and 2.3.0 mixtures).

At present, the total consumption of fertiliser in Lesotho is very low; it does not exceed a 100,000 pockets (of 100 lbs.). The plan target is to increase consumption gradually over the 5—year period to 700,000 pockets. Assuming an average fertiliser requirement 3 pockets per acre, a total of about 200,000 acres could be properly fertilised by the end of the plan period from the additional 600,000 pockets. It is estimated that a high proportion of the planned increase in crop production could be realised through the application of the fertiliser programme.

This expansion in the use of fertilisers will require a considerable increase in agricultural credit. Agricultural credit will have also to be increased in order to allow for a more extensive application of pesticides, equipment, better seeds etc. Total credit for fertiliser, pesticides etc. is estimated at the level of R1.3 million for the year 1975. This level will be reached gradually, in accordance with the expected rate of increase in the use of fertilisers, as indicated in table 7.5. Capital requirements for subsidies on fertiliser and seed are shown in table 7.6.

For such an expansion of agricultural credit a number of organisational and technical problems must be solved. The establishment of the Development Bank — which will also incorporate a special service for the investigation of agricultural loans — will greatly facilitate the solution of these problems.

The fertiliser programme will be concentrated in areas of high crop yield potential where there are possibilities of mechanical operations. Agricultural field staff will be concentrated in these areas, in order to supervise the work properly. To facilitate the administration of credit and the work of the extension agents, farmers will be encouraged to get organized in farmers' associations and cooperative societies. Appropriate marketing arrangements and storage facilities are also required.

B. F.A.O./F.F.H.C. Fertiliser Programme

The first phase of this project consists of:

- (a) a large number of demonstrations on farmers' fields, to determine the right kinds of fertiliser and the optimum rates of application;
- (b) a smaller number of more precise trials also on farmers fields, to determine the most efficient fertiliser use;
- (c) development of a soil testing service based on the results obtained in the field and laboratory;
- (d) assistance in the training of personnel in the techniques of trials, demonstrations and soil analysis.

The provisional budget for the period 1969-73 is shown in table 7.7.

TABLE 7.5.

Credit Requirements for Fertiliser, Pesticides etc.

Year	Fertiliser requirements (in thousand pockets)	Annual Credit requirements for fertiliser (in thousand R)	Annual credit requirements for pesticides etc. (in thousand R)	Total annual credit requirements (in thousand R)
1970/71	150	240	30	270
1971/72	230	370	60	430
1972/73	350	560	100	660
1973/74	500	800	150	900
1974/75	700	1,100	200	1,300

TABLE 7.6

Capital Requirements for Fertiliser and Seed Subsidies

1970/71	1971/72	1972/73	1973/74	1974/75	Total
56,500	65,000	65,000	60,000	50,000	296,500

Note: It is assumed that the rates of subsidies will be reduced gradually as the farmers become fertiliser conscious.

TABLE 7.7.
Cost of FAO/FFHC Fertiliser Programme (R)

Cost Item	1969	1970	1971	1972	1973	Total
Expert	12,750	13,500	13,500	13,500	13,500	66,750
Automobile	1,950	—	—	—	—	1,950
Fertilisers	900 (15 T)	3,750 (60 T)	12,000 (200 T)	13,500 (200 T)	13,500 (225 T)	43,650 (725 T)
Regional Leader (Travel)	225	225	225	225	225	1,125
Small equipment and contingencies	300	150	150	150	150	900
	16,125	17,625	25,875	27,375	27,375	114,375

No considerable additional financial involvement of the Lesotho Government is envisaged. The Scheme will be operated mainly within the existing financial provisions.

7.1.5. Crop Research

The crop research programme started in 1953 and has been mainly investigational work on fertilisers and seed varieties. It has shown that phosphorus is deficient in Lesotho, but the consequences of continuous applications on different soils have not been determined. In order to gain precise and detailed information on suitable application of fertilisers in all types of soils and on the adaptability of different varieties to each agroecological zone it is necessary to expand the programme gradually to cover the whole country. For this purpose additional research stations, north and south, will be established.

The main points of the research programme are outlined below:—

A. Fertiliser Trails

1. **Inorganic** (phosphate, Nitrogen, Potash) to determine the effects, residuals, time, rates and forms of application, per crop, per soil.

2. **Organic** (Straw, Stover Kraal Manure) to determine effects, time and forms of application, with or without artificial fertiliser.

3. **Trace elements.** To determine deficiency, suitable methods and rates of application.

4. **Evaluation of new fertilisers.**

B. Variety trials

To compare new and standard varieties and define the qualities of each variety under drought conditions, and also, test resistance (or susceptibility) to disease. It is particularly necessary to test these varieties under Lesotho climatic conditions, before farmers can use them and to investigate the possibilities of new cash crops.

C. Selective Herbicides

To determine the type, time and methods of application, as well as residual effects. Weeding in wheat, in particular, is impossible by hand, and the application of herbicides is the only way to maintain the quality of seed.

D. Insecticides.

To determine effects, rates and time of application, and residuals on both grain and soil.

E. Maseru Experimental Station.

The station will be expanded to serve the two new research stations which will be established (in Leribe and Mohale's Hoek). In particular the equipment of the soil laboratory will be improved; a Greenhouse, for conducting trials and getting rapid results and Cold Storage, to keep seeds and chemicals, will be established. In addition, the old fashioned equipment of seed and Health Testing Laboratory will be replaced, and the Seed Certification section will be improved. The estimated capital cost of improvement of the Maseru Station is R51,000.

F. New Crop Research Stations.

Two new research stations, one in Leribe and another one in Mohale's Hoek, will have to be established in order to serve adequately the whole country. These stations will not be very elaborate, since to a large extent they will be served by the Maseru Station. Estimated capital cost for both stations is R44,300.

TABLE 7.8.

Crop Research Programme (In Rands)

I Capital Expenditure		1970/71	1971/72	1972/73	1973/74	1974/75	Total
1)	Greenhouse (Maseru)	—	15,000	—	—	—	15,000
2)	Cold Storage (Maseru)	—	10,000	—	—	—	10,000
3)	Main buildings (Leribe and Mohale's Hoek)	—	—	16,000	—	—	16,000
4)	Fencing Material (Leribe and Mohale's Hoek)	—	—	1,500	—	—	1,500
5)	Incubator (Maseru)	—	—	14,000	—	—	14,000
6)	Seed Pathology Lab. (Maseru)	—	—	—	12,000	—	12,000
7)	Staff Quarters (Leribe and Mohale's Hoek)	—	—	—	10,000	—	10,000
8)	Tractors and Trucks	—	—	—	16,800	—	16,800
TOTAL CAPITAL		—	25,000	31,500	38,800	—	95,300
Recurrent Expenditure							
Personal Emoluments		14,165	22,984	29,472	40,306	41,934	148,861
Labour		6,000	17,045	17,766	21,003	21,933	83,747
Operation costs		7,700	25,300	26,300	27,300	27,500	114,100
Fencers		—	632	685	738	791	2,846
TOTAL RECURRENT		27,865	65,961	74,223	89,347	92,158	349,554

7.1.6. Mechanization — Tractor Hire Service (LEMA)

As a result of the growing shortage of suitable draft animals — especially in the lowlands — and of the absence from the country of a large proportion of the able bodied men, an increase in mechanized cultivation becomes necessary.

Mechanized cultivation will result in higher yields through deeper and more timely ploughing. Crop failures are largely due to the fact that ploughing cannot be done at the right time. Mechanization would also be helpful in reducing the acreage of fallow lands.

The first need is to use the existing tractors in the country properly. There are now about 400 privately owned tractors in Lesotho. Most of these tractors are hired out, either for cash or on a share crop basis. Many owners, however, do not know much about servicing and maintenance of tractors and in most cases they do not even know whether they are making profits or losses. The Business Extension Service of the Ministry of Finance will provide practical advice in this regard.

The Lema Tractor Hire Service operated by the Ministry of Agriculture is showing good results. However, it is faced with the problem of too many idle hours which could be reduced only by forming more associations and co-operative organisations of the farmers who use tractor hire services.

The present capacity of LEMA is very limited. It operates only 16 tractors, most of which are now becoming uneconomic to maintain and it is necessary to commence replacing them. In view of the rapidly growing demand for LEMA's services and the need to support the implementation of the fertiliser programme, an increase of the tractor fleet up to 30 tractors, within the 5-year period, is envisaged.

The Ministry intends to operate "LEMA" as an economically self-supporting unit. Thus, the capital required for its expansion will be provided on a loan basis.

TABLE 7.9

Tractor Hire Services (LEMA): Capital Requirements
(in Rand's)

	1970/71	1971/72	1972/73	1973/74	1974/75	Total
Tractors	22,000	22,000	22,000	22,000	22,000	110,000
Combine Harvestors	9,800	4,500	—	—	—	14,300
Thrashing Machines	4,400	4,400	—	—	—	8,800
Bales	—	—	3,000	—	—	3,000
Transport (2 Land Rovers and 1 three quarter ton truck)	2,500	2,500	3,000	—	—	8,000
Housing	3,600	—	—	—	—	3,600
TOTAL	42,300	33,400	28,000	22,000	22,000	147,700

7.1.7. Irrigation

A. Introduction

Lesotho has abundant water resources but at the same time seriously suffers from unreliable rainfall. Irrigation could reduce the reliance of agriculture on the rainfall regime and provide a guarantee against drought.

On the basis of investigations of the land resources, certain types of soils such as alluvial, eutrophic and fersiallitic, have been determined as physically suitable for irrigation. These soils constitute about 35 per cent of the total arable land, but the irrigable percentage is much lower because of difficulties in topography. Very little is known about the irrigability of claypan soils, which are economically the most important because they form about 55% of the arable land.

Areas which are at present known with some certainty as suitable for irrigation farming (mostly composed of alluvial soils) are in the following locations:—

	Acres
Caledon River	4,000
Phuthiatsana River and tributaries	3,000
Hlotse River and tributaries	2,400
Little Caledon and tributaries	1,400
Caledon tributaries	4,000
TOTAL	15,700

Crop yields obtained in the Maseru Experimental Farm and in the Thaba Phatsoa irrigation scheme are encouraging. The following table gives a comparative picture of the yields for irrigation and dryland cultivation:

Yields of Crops From Irrigation and Dryland
(In 200 lb bags/ac)

	Experimental Plots Irrigation	Irrigated * Fields: Farm Conditions	Dryland Expt.	Progressive Farmers
Maize	60	30	12	4
Peas	10	10	4	2
Beans	13	11	3	2
Potatoes	12 Tons/ac	10 tons/ac	4½ tons	1 ton
Winter Wheat	16	15	4	2½
Fodder	—	—	—	—
Sorghum	35 tons greed feed	—	15 tons	—
Winter Grasses	20 tons "	—	9 tons	—
Lucerne	6 tons hay	5 tons hay	—	—

* Yields from Thaba Phatsoa irrigation scheme (except lucerne)

The main points of the irrigation programme for the quinquennium are presented below:

B. Irrigation Schemes

The Ministry will prepare detailed plans for the application of irrigated farming to 4,500 acres, during the period 1970/75. In particular, during the year 1970/71 a number of small pilot irrigation projects are being implemented to demonstrate the impact of irrigation on agricultural productivity. The implementation of the irrigation programme will begin 1971/72. It has already been shown that Phuthiatsana, where about 3,000 acres are readily available for irrigation, is the most suitable area for commencement. Other areas are also under investigation.

Government intends to support only economically viable irrigation schemes. This means that, in addition to technical feasibility considerations, the economics of each scheme will have to be thoroughly investigated before any decision for financing is taken. Furthermore, appropriate machinery for recovering the capital cost of the schemes has to be devised. The Ministry is considering an irrigation programme composed of large irrigation schemes, which apart from their technical advantages, are suited to co-operative management and thus provide a guarantee for recovering capital. The establishment of the Development Bank will facilitate the application of this policy.

The total capital cost of the 5-year irrigation programme is estimated at approximately R2 millions, analysed as follows:

TABLE 7.10
Capital cost of Irrigation Schemes
(in R'000)

	1970/71	1971/72	1972/73	1973/74	1974/75	Total
Pilot Project	25	—	—	—	—	25
Irrigation Dams	—	200	400	400	—	1,000
Irrigation Equipment	—	—	—	100	550	650
Access roads, Housing	—	50	50	80	—	180
Storage facilities equipment sheds	—	40	50	40	—	130
	25	290	500	620	550	1,985

C. Leribe Irrigation Research Station

In 1967 a 20-acre pilot irrigation scheme was started at Thaba Phatsoa and this has now been expanded to about 100 acres. A further scheme on 30 acres of similar soil has been

started at Leshoele's on the Hlotse river. Further development along this river is planned and it is now necessary for an Irrigation Research Station to be established in this area. Investigation concerning fertiliser rates and types, varieties and types of crops and crop rotations, frequencies and amounts of irrigation, precipitation rates, measurements of evapo-transpiration and climatic conditions influencing growth and development of crops will be carried out on this soil type in the particular climatic environment.

A ten acre plot will be used and the station will be staffed by a Senior Technical Officer with a Technical Assistant and five permanent labourers. A small meteorological station, irrigation equipment and small tools will also be required.

The capital and recurrent cost for this station is estimated to be as follows:—

Leribe Irrigation Research Station

	1970/71	*1971/72	1972/73	1973/74	1974/75	Total
Capital expenditure (housing, office transport, tools and implements, site preparation etc.)	7,750	10,000	—	2,000	—	19,750
Recurrent expenditure (personal emoluments, maintenances, labour, seeds and fertilisers etc.)	—	7,806	8,098	8,540	8,800	33,244

D. Tsakholo Irrigation Research Station

There is great need for expanding irrigation research in the Southern part of the country, where rainfall is much lower and more erratic than in the north. The greater part of the arable land in the south is formed from soils of the claypan type. Good yields can be obtained in claypans when rainfall is adequate. However, since these soils have a low capacity of moisture retention, in hot dry weather the moisture reservoir is quickly depleted, thus, resulting in very low yields or crop failure.

Irrigation would give considerable yield increases. The topographical conditions are good for irrigation. Claypan soils are mostly low lying with moderate slopes close to waters, either from rivers, existing dams, or near good dams sites. The engineering aspect would therefore present few problems. But claypans

are physically difficult to irrigate because their natural drainage is poor. Research to find out ways of handling the claypan soils under irrigation is therefore needed. A properly equipped station, similar to the Leribe research station, will be established in Tsakholo, to undertake this research. A small pilot scheme has already been started at the same place, in order to indicate lines of research. The Tsakholo Dam commands a considerable area of this soil type and presents an ideal site for reasearch.

The capital and recurrent cost for the station, as well as the phasing of this cost for the five-year period, are estimated as follows:—

	1970/71	1971/72	1972/73	1973/74	1974/75	Total
Capital	20,000	—	—	—	2,000	22,000
Recurrent	12,800	13,000	13,500	13,800	14,900	68,000

The difference in cost between the Leribe and Tsakholo research stations is mainly due to the salary emoluments for an expert on soil drainage, who will be required for the work in the Tsakholo station.

E. Utilisation of the water resources from existing dams

As has already been mentioned, in the past dams were constructed for soil conservation purposes without considering the utilisation of the water for irrigation. It is believed that many of these dams are suited for small irrigation schemes, but information is needed about their capacity, proximity to population settlements, methods of water utilisation (by gravitation or pumping), soil irrigability etc.

A survey for the utilisation of the water resources of the dams will be undertaken by the Ministry of Agriculture. This survey will be carried out in the light of the results of the UNDP/SF Water Resources Survey, due in 1971.

F. Training of Staff

Supervisory and managerial staff need to be trained for irrigation schemes. For the supervisory staff two solutions are under consideration:

- (a) The provision of common training facilities for Lesotho, Botswana and Swaziland. A special project, to be financed by U.S.A., is under examination.
- (b) The establishment of an ad hoc training centre staffed by technical assistant experts.

Four to six months are sufficient for training supervisory staff. The supply of managerial staff is a more difficult problem, which the three-country training project will help to solve. Candidates for training will be expected to have a degree from the Agricultural College of Swaziland. Until local qualified managerial staff becomes available, experienced expatriates will be employed in managerial positions.

G. Organisation

A special Irrigation Research Unit will be established in the Ministry of Agriculture within the Division of Plant Production. This Unit will be responsible for the three main irrigation research stations, in Maseru, Leribe and Tsakholo, and will also undertake the survey for the utilisation of the water resources of the dams.

Apart from research on soil irrigability and on related engineering problems, crop and fertiliser research as well as comparative studies of the economies of alternative crops in relation to the cost of irrigation, will also be the responsibility of this Unit. The Unit will, in particular, indicate areas for irrigation schemes to be included in the 5-year programme, and will also investigate the technical and economic aspects of these schemes.

The Irrigation Research Unit will require, in addition to the professional and supporting staff for the Leribe and Tsakholo Stations:

- (a) one Senior Research Officer, who will be responsible for the whole research programme and for the administration of the Unit;
- (b) one Research Officer, responsible for the research programme at Maseru and Leribe Stations.
- (c) one expert on soil drainage responsible for the research programme at the Tsakholo Station.

The additional cost (mainly personal emoluments) for the establishment of the Irrigation Research Unit is estimated at about R60,000 for the period of the plan.

7.1.8. Soil and Water Conservation

Soil and water conservation activities are at present inadequately related to agricultural production. The already mentioned case of dam construction is an example of soil conservation activities not properly co-ordinated with irrigation farming. To ensure proper co-ordination a special body will be established under the Permanent Secretary of the Ministry of Agriculture, namely the Ministerial Planning and Coordinating Committee. This committee will be composed of representatives of all Divisions of the Ministry.

Policy Objectives

The objectives of the soil and water conservation policy for the next five years can be summarized as follows:

- (a) Priority will be given to the protection of areas which are still in good condition and can sustain production, rather than to repairing the ravages of erosion in areas which have been very badly damaged. Nevertheless, it is impossible to ignore the damage facing most of the southern lowlands around Mafeteng and Mohale's Hoek. In certain cases reclamation work is urgently needed. For this reason a reclamation scheme has been started in Liphiring area. This will be intensified, and within five years it is hoped to produce a noticeable change in the conditions of the area to serve as a focal point for encouragement to neighbouring areas.**
- (b) In most cases efforts will concentrate on establishing water-ways rather than on extending contour systems. Lesotho has already a reasonable proportion of its cultivated areas protected by contour ridges, but these contours invariably discharge into badly eroded gullies. Re-establishment of fenced and grassed waterways is a matter of urgent necessity and it is unlikely that this will advance far enough within the next five years to enable any great attention to be given to new contour systems. Where new areas are to be opened up to intensive cultivation, complete land protection systems will need to be implemented.**
- (c) Increasing attention will be given to land protection works in the northern lowlands (Teyateyaneng, Leribe, Butha-Buthe) where an expansion of improved agriculture is planned.**
- (d) The protection of selected catchment areas of dams scheduled for major irrigation projects or for water supply, will also have high priority.**

Cost of the 5-year Programme

Estimates on capital and recurrent costs of the five-year programme on water conservation, land protection and gully control, tree planting etc. is given in Table 7.11

TABLE 7.11

Cost Estimates (in R) of the 5-year Land and Water Conservation Programme

I Capital Cost

Item	1970/71	1971/72	1972/73	1973/74	1974/75	Total
1. Construction Plant and Equipment	40,400	32,500	50,000	45,000	40,000	207,900
2. Workshops Extensions,	7,500	4,000	15,000	8,000	5,000	39,500
3. Working Tools, Scaffolding, Wheelbarrows, Caravans Field Huts, etc.		3,500	4,000	6,000	6,000	19,500
4. Purchase of Additional Vehicles		7,500	10,000	9,000	7,500	34,000
5. Housing-Office Accommodation — Furniture		26,000	18,500	9,500	9,000	63,000
6. Other (including Construction and workshop materials, piping, fitting for dams etc.)	12,800	112,000	124,000	141,000	153,000	542,800
Total Capital Cost	60,700	185,500	221,500	218,500	220,500	906,700

II Recurrent Cost

1. Salaries and Wages of Additional Staff	9,530	7,500	12,000	12,000	15,000	56,030
2. Additional Subsistence and Transport Charges	3,000	2,200	3,500	3,500	4,300	16,500
3. Survey and Drawing Instruments Stationery and Materials		600	900	900	1,100	3,500
4. Other Charges		600	700	700	700	2,700
Total Recurrent Cost	12,530	10,900	17,100	17,100	21,100	78,730

7.1.9. UNDP/SF Integrated Programme

This is a "spearhead" project, especially designed to demonstrate the impact upon production and income that can be accomplished by an integrated approach. It will concentrate on the application of a relatively simple package of inputs, combining limited mechanisation, over an area of 5,000 acres situated in the Leribe District, and for a period of five years. The project may become a basis for a general strategy of agricultural development. This strategy will consist in the extension of "package" of inputs beyond the nucleus area, as rapidly as resources permit, followed by the use of more sophisticated agricultural methods, where conditions favour their application and growth.

The project's size is sufficient to demonstrate the effects of improved production techniques and inputs on agricultural output. The transformation of the selected area, by means of mechanisation, appropriate use of fertilizers, good seeds of improved varieties and pesticides will set a convincing example, which will increase the farmer's confidence in the potential of the land.

It is hoped that the success of the process may result in a wide acceptance of more complex technical and organisational innovations which will considerably increase agricultural productivity.

Training will be undertaken throughout the duration of the project to meet the needs of counterpart personnel and farmer participants; the scope of the training programme will be expanded to embrace other employees of the Ministry of Agriculture and representatives of farmer organizations and of private agencies engaged in agricultural activities within and in close proximity to the project area.

As the project will introduce many innovations in a traditional farming society, it was essential that a prior survey of sociological factors be made. An F.A.O. rural sociologist is already carrying out preparatory field investigation, in order that the pilot scheme be devised on a realistic basis.

The main thrust of the project will be to launch a carefully supervised programme of soil conservation, crop improvement and advanced husbandry in the pilot zone. In addition to the supervised use of modern equipment, improved seeds, etc. an essential feature of the development will be the introduction of an orderly cycle of husbandry, following all stages of land preparation, sowing, weeding, fertilizing and cropping. It is planned that the project should build up the pilot scheme from 200 acres in the first year, expanding to 1200 acres, 2200 acres, 3600 acres and 5000 acres respectively in the succeeding years.

The project will provide the basic framework of services and guidance for the farmers in the scheme. Arrangements will also be made for agricultural credit and market outlets. Strict economic criteria will be applied in planning and evaluation of crop and livestock production in the pilot scheme.

The organisational solution for this project will be the "semi-co-operative" form, as it is the one most likely to be generally acceptable. This would leave the present pattern of land-holding undisturbed, while allowing for a large increase in productivity. The project will therefore test the degree of compatibility of the land tenure system with the rapid expansion of agricultural production.

The UNDP contribution, equivalent to approximately Rand 822,000, will be used to provide a team of experts, training facilities for counterpart staff, agricultural inputs including seeds, fertilizers, herbicides, pesticides, tractors together with ancillary equipment, transport vehicles, and sprinkler irrigation equipment.

The value of the Government participation in the project is estimated at approximately Rand 430,000 and will be used to meet the cost of counterpart staff salaries and wages, of land, buildings, and equipment, and of certain specified miscellaneous items.

An analysis of the total cost of the scheme is given in the following tables.

TABLE 7.12

Leribe Integrated Agricultural Development Project

	Part I: UNDP/SF Contribution					
	1970/71	1971/72	1972/73	1973/74	1974/75	Total
	R	R	R	R	R	R
1. Buildings — Equipment (Buildings, crop store, workshops etc. — vehicles, tractors, livestock equipment, laboratory equipment etc.)	46,000	28,690	21,520	12,900	10,431	119,541
2. Experts (Agronomist, Production Economist, Agricultural Engineer Marketing Officer etc.)	40,000	206,700	191,000	132,000	50,630	620,330
3. Fellowship (on general agriculture, soil conservation, farm management etc.)	—	10,000	17,630	10,000	7,610	45,240
4. Miscellaneous (including secretarial and clerical work and contingencies)	7,340	7,340	7,340	7,340	7,362	36,722
U.N.D.P. Project Costs	93,340	252,730	237,490	162,240	76,033	821,833

Note: Item (1) involves mostly capital cost. Items (2) — (4) are mostly current expenditure.

TABLE 7.13

Leribe Integrated Agricultural Development Project

Part II Contribution of Lesotho Government in Services and Facilities						
	1970/71	1971/72	1972/73	1973/74	1974/75	Total
	R	R	R	R	R	R
1. Staff Services:						
a) Professional staff						
b) Non-professional staff	40,000	62,134	62,134	62,134	62,134	288,536
2. Fellowship:	—	8,035	8,035	8,035	8,035	32,140
(Salaries to fellowship holders)						
3. Equipment	23,000	17,818	17,818	17,818	17,820	94,274
4. Miscellaneous	4,635	4,422	2,457	1,743	1,743	15,000
Contribution by the Lesotho Govt.	67,635	92,409	90,444	89,730	89,732	429,950
Cost of services and facilities to be provided from existing capital	55,635	74,409	69,444	69,730	69,732	338,950
Net additional expenditure	12,000	18,000	21,000	20,000	20,000	91,000
TOTAL	67,635	92,409	90,444	89,730	89,732	429,950

7.1.10 Foreign Trade

Realization of the production targets for the crop-sector will improve the balance of trade for crops considerably, as shown in table 7.14.

The expected trade surplus for crops for the year 1974/75 is estimated at approximately R5.9 million, which represents a R8.2 million improvement over the present trade balance. The following assumptions underline this table:

- (a) The nutritional requirements for 1974/75 for grains will increase to approximately 2,100,000 bags (200lbs) and for pulses to approximately 250,000 bags, considering population increase and expected changes in nutritional patterns.
- (b) Increased maize and sorghum production will be absorbed in the country to cover the population needs.
- (c) The importation of processed wheat will continue and will increase to 150,000 bags (200 lb) per annum.

TABLE 7.14

Crop Production: Exports/Imports (thousands of bags and R million)

Crops	Present Situation				1975			
	Imports		Exports		Imports		Exports	
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
Maize	300	1.20	—	—	—	—	—	—
Sorghum	40 *	0.16	—	—	—	—	—	—
Wheat	120	0.80*	60	0.30	150	1.00*	1,420	6.40
Peas	—	0.30*	20	0.16	—	—	68	.68
Beans	—	0.10*	10	0.10	—	—		
Vegetables/ Potatoes	—	0.15	—	—	—	0.04	—	—
Fruits	—	0.10	—	—	—	0.08	—	—
Vegetable oil	—	0.10	—	—	—	0.05	—	—
		2.91		0.56		1.17		7.08

*Processed

7.1.11 Financial Summary

The financial requirements for crops, irrigation and soil and water conservation are summarized in Tables 7.15 and 7.16.

TABLE 7.15

Capital Requirements for Crop production, Irrigation and Soil Conservation.

	1970/71	1971/72	1972/73	1973/74	1974/75	Total
Fertil. seed subsidies	56,500	65,000	65,000	60,000	50,000	296,500
F.A.O. Fertil. Programme	16,125	17,625	25,875	27,375	27,375	114,375
Crop Research	—	25,000	31,500	38,800	—	95,300
Tractor Hire	42,300	33,400	28,000	22,000	22,000	147,700
Irrigation						
(a) Projects	25,000	290,000	500,000	620,000	550,000	1,985,000
(b) Research Stations	27,750	10,000	—	2,000	2,000	41,750
Soil and Water Conservation Construc- tion, workshops, Vehicles etc	60,700	185,500	221,500	218,500	220,500	906,700
U.N.D.P. Integrated Agric. Programme	93,340	252,730	237,490	162,240	76,033	821,833
Mountain wheat multiplication	—	7,000	8,000	—	—	15,000
Vegetable and fruit improvement	7,520	7,000	7,000	10,000	11,000	42,520
Inducement Grants for Communal Gardens	13,000	10,000	10,000	10,000	10,000	53,000
Total	342,235	903,255	1,134,365	1,170,915	968,908	4,519,678

TABLE 7.16
 Recurrent Requirements For Crop Production

	1970/71	1971/72	1972/73	1973/74	1974/75	Total
Crop Research Irrigation	27,865	65,961	74,223	89,347	92,158	349,554
(a) Research Stations	12,800	20,806	21,598	22,340	23,700	101,244
(b) Research Unit	—	15,000	15,000	15,000	15,000	60,000
Soil and Water Conservation	12,530	10,900	17,100	17,100	21,100	78,730
U.N.D.P. Integrated Agric Programme	12,000	18,000	21,000	20,000	20,000	91,000
Total	65,195	130,667	148,921	163,787	171,958	680,528

7.2. LIVESTOCK

7.2.1. Policy objectives and production targets

Livestock contributes to cash income more than any other sector in the country. However, its level of productivity is far from satisfactory. This sector has a great economic potential, which could be tapped only by supplying an adequate improvement policy.

The main long term policy objective for animal husbandry is to raise considerably the level of productivity and to improve the quality of livestock production, through:

- (a) better feeding and management;
- (b) improvement of breeds;
- (c) veterinary investigations, clinic services and supervision of the treatment and protection of livestock against diseases;
- (d) training of staff and farmers in all aspects of animal husbandry, particularly with the view of changing the traditional attitudes of the people towards livestock;
- (e) pasture management and grazing control combined with control over the numbers of the livestock population, which will also relieve the pressure particularly in the most overstocked foothill and lowland areas;
- (f) completion of the network of Livestock Centres;
- (g) improvement, maintenance and expansion of access roads to the Livestock Centres;
- (h) promotion and development of an efficient marketing system for livestock and livestock products.

The output targets (in terms of value) for the five-year period are shown in Table 7.17.

Although Lesotho's total area is only 11,20 square miles, its mountainous terrain makes it a very difficult country to traverse and over much of it there are virtually no communications. Moreover periodic droughts and long cold winters cause great suffering to the livestock population and make the improvement of its conditions difficult. Another difficulty is the attitude of the farmers, who seem to prefer quantity rather than quality of stock. There is some indication that this attitude is now slowly changing, but is still responsible for much overstocking.

An idea of the extent of overstocking is given by the following figures. The total available land for grazing is estimated at 4,500,000 acres, of which 2,000,000 acres are suitable for large

stock and 2,500,000 acres for small stock. With the present depleted pastures, one unit of large stock would require about 10 acres. This gives room for about 250,000 units of large stock, as compared with approximately 420,000 existing units (see Table 7.18) With respect to small stock the situation is even worse. Assuming 2 acres per animal (sheep or goat) the total number of stock should be about 1,250,000. However, the actual number seems to be almost twice as much.

TABLE 7.17

Livestock: Gross Value of Production and Gross Value Added

	Gross Value 1968/69	Gross Value 1974/75 (Targets)	Absolute change	% change in Gross Value	% change per annum
Beef (export)	1,200,000	1,500,000	300,000	25%	4.6%
Beef (local)	300,000	500,000	200,000	67%	10.8%
Dairying	1,300,000	2,300,000	1,000,000	77%	12.2%
Wool	1,500,000	2,500,000	1,000,000	67%	10.8%
Mutton	1,000,000	1,300,000	300,000	33%	5.4%
Mohair	700,000	900,000	200,000	28%	5.1%
Goat Meat	300,000	300,000	—	—	—
Hides	50,000	100,000	50,000	100%	14.9%
Skins	150,000	200,000	50,000	33%	5.4%
Poultry	1,000,000	1,500,000	500,000	50%	8.4%
Pigs	50,000	150,000	100,000	200%	24.8%
Draft and Pack	300,000	300,000	—	—	—
	7,850,000	11,550,000	3,700,000	Average 47.5%	8.1%
Less in- puts (mainly import content)	950,000	1,500,000			
Value added	6,900,000	10,050,000	3,150,000	45.7%	7.8%

The resulting overgrazing has serious consequences. Among others, it involves animals in travelling long distances in search of food, and it is a major source of soil erosion. The Ministry's long run policy is to limit the stock numbers to the carrying capacity of the land. This policy will have to be applied gradually, starting from the prevention of further increases in numbers and giving priority to overtaxed areas.

TABLE 7.18

Land Requirements for the Livestock Population

Stock	Heads	Equivalent livestock units*	Total area needed (acres)**	Total area available (acres)
Cattle	400,000	320,000	3,200,000	2,000,000 for large stock
Horses	100,000	70,000	700,000	
Donkeys and Mules	60,000	30,000	300,000	
Sheep	2,000,000	400,000	4,000,000	2,500,000 for small stock
Goats	900,000	180,000	1,800,000	
Total	—	1,000,000	10,000,000	4,500,000

* The following coefficients were used for the conversion of heads to (large) livestock units: For cattle 0.8, horses 0.7, donkeys and mules 0.5, sheep and goats 0.2.

**It is assumed that 10 acres are needed for one stock unit.

7.2.2. Agroecological Zones

The Ministry's policy will have to be in harmony with local ecology. Lesotho has certain agroecological zones suitable for stock farming on extensive, semi-intensive and intensive systems.

Upper Mountain Grazing

This occurs at an elevation of 8,500' upwards and is a short grass zone essentially suitable for summer grazing by small stock.

Lower Mountain Grazing

This zone occurs between 7,000'—8,500' and is suitable for the grazing of cattle and goats with provision for reserve winter grazing for sheep.

Both the above zones are essentially grazing areas in which village development and cultivation will be gradually discouraged.

Mountain Village Zone

This occurs at 6,000'—7,000'. It is fairly densely populated, consisting basically of areas flanking river valleys, and provides

arable land interspersed with small isolated grazing areas. Large stock should predominate over small stock with emphasis mainly on breeding and fodder production.

Foothill Zone

Altitudes are the same as in the preceeding zone and similar to it, in certain respects. Altitudes and other conditions are similar to those in the preceeding zone but it is more densely populated and better served by communications. It has a higher proportion of arable land but is basically a mixed farming zone, suitable for intensive systems of livestock production, fattening of beef, dairying and pig and poultry rearing in selected areas.

Lowland Zone and the Orange River Valley

These occur at 5,000'—6,000' and are densely populated, arable and suitable only for crop and intensive livestock production.

7.2.3. Sheep/Wool

According to the 1967 census, the sheep population in the country was 1,520,000. Certain indications, such as annual wool production, point to the conclusion that this population has been increased considerably over the last few years and it may be now approximately 2,000,000.

It is clear that the solution of the problem of overstocking is possible only if the quality and quantity of output per animal can be raised through upgrading and better management to compensate for the reduction of numbers. At present, nearly half of the nation's sheep can be reached by the Livestock Division's improvement policy, either through the provision of improved stock or at the wool shed. It is expected that during the next five years the percentage of coverage will increase up to 80% of the sheep population and the results of the Ministry's policy will be more effectively felt by the producers. In this way cross breeds will finally disappear and the national flock will become pure Merino. This will lead to more uniform wool qualities and increased productivity, so that total wool production will increase even with a reduction of the population numbers.

The expected improvement in the quantity and value of wool production during the 5-year period will be mainly achieved through better breeding, feeding and pasture management, better grading and marketing of wool and more effective control of internal and external parasites.

The breed of choice under Lesotho conditions is the Merino. Sheep improvement has relied mainly upon the importation of rams from South Africa. One sheep stud with a flock of 300 has been established at Quthing and one is under construction in Mokhotlong. One more Merino sheep stud is planned, to bring the total to three.

Improvement of breeding rates is another aspect of the breeding problem. The potential in the sheep industry depends greatly on the ratio of ewes to the total sheep population. At present this ratio is not more than 40%. It could therefore be raised considerably, up to the proper ratio which is 60 to 65%. The achievement of the optimum ratio would lead to a 50% increase of the annual off-take. During the five-year period every effort will be made for a considerable improvement in the present ratio. This will make necessary a replacement of non-productive stock and efficient marketing is therefore an important pre-condition.

The problems of pasture management, marketing, and health are examined in separate sections below. With respect to marketing (of wool), recent experience shows that with proper classing and where necessary bulking, producers can obtain far better returns. Thus, the members of the Wool Growers Association, selling directly to brokers on the coast, have obtained an average net price 60% higher than the price paid in Lesotho by traders. However, only a small percentage of total wool production was marketed directly through the Wool Growers Association. The establishment of the Livestock Marketing Corporation (see 7.2.13) is expected to improve considerably the marketing prospects of wool.

In spite of promising developments in the production of wool the Livestock Division is investigating the possibility of keeping animals of dual purpose, namely fleece and meat. Mutton production in certain areas could be less demanding on the soil.

7.2.4. Goats/Mohair

The goat population is estimated at 900,000. This figure is far in excess of the carrying capacity of the foothill area, in which goats are mainly confined. In addition, it seems that not more than a half of this population is composed of good Angora goats. As a result the average yield of mohair has remained very low (2 to 3 lbs per goat) and of very poor quality, in spite of the Ministry's efforts for improvement. Reduction of numbers would lead to a considerable improvement in pastures and make more effective the Ministry's policy of combating soil erosion in the very vulnerable areas of foothills. If a reduction in numbers is coupled with better management and breeding, more effective

control of parasites and adequate marketing of mohair, the economic prospects of the goat industry could be improved substantially. It is estimated that a 40—50% increase in cash revenue would be possible.

The establishment of the Livestock Marketing Corporation will solve the problem of marketing.

The improvement of breeding will be mainly pursued through the establishment of Angora Goat stations. One such station is planned for the second part of the period of the plan.

7.2.5. Cattle

The present cattle population is estimated at about 400,000. The main problem of the cattle industry is the improvement of the quality of animals. Due to the massive and indiscriminate importation of replacement stock from South Africa the main type of animal now is a mongrel one. In the mountains there still exist the Basutoland breed and relatives of the Drakensberg of Natal.

The Ministry's policy is to introduce the Brown Swiss breed which is proved to do very well under Lesotho conditions. This choice for upgrading the national herd was made because the breed is ecologically suitable to the conditions of the country and has a great milk and beef potential. At present bulls are being imported from the Republic of South Africa. However, two cattle breeding stations are planned for the five-year period.

Contrary to the policy with respect to the numbers of other animals, it is considered essential that the numbers of cattle should further increase, but through the introduction of intensive rather than extensive feeding practices. Growing fodder for winter feeding and using crop residues for fattening will go hand in hand with the general policy of upgrading the quality of the stock and the application of better cultivation methods.

7.2.6. Poultry

The poultry industry received a considerable stimulus with the F.A.O. and UNICEF assisted Food and Nutrition Programme, which emphasised the need for protein in human diet. The Poultry Improvement and Multiplication Scheme has progressed well since the appointment of an officer on poultry husbandry. There exist possibilities of substituting domestic for imported poultry products, which at present cost about R20,000 annually. The Ministry's policy is to speed up this development.

7.2.7. Other Stock

Horse and pig improvement will remain on a care and maintenance basis, and no special facilities are contemplated in the immediate future.

7.2.8. Hides and Skins

The value of annual production of hides and skins is about R200,000, of which R100,000 is exported. A large proportion of hides and skins produced in Lesotho are of poor quality, coming from emaciated or deceased animals. Even the better hides and skins often have their value reduced by damage inflicted during flaying and preparation. Flaying and drying standards are very low; higher standards could lead to significantly higher price.

The Livestock Marketing Corporation will provide a single market for hides and skins, and a single grading system will be organized by the Ministry of Agriculture. The Livestock Marketing Corporation will also consider the possibility of providing price incentives as well as the establishment as soon as it is feasible of a tannery and wool pullery.

7.2.9. Pasture Research and Management

Pasture research and veld management is an integral part of the Ministry's land conservation and farm productivity objectives. Its importance for increasing the quantity of livestock production and improving its quality cannot be over-emphasised. Moreover the stabilisation and protection afforded by improved pasture management will greatly reduce land erosion, improve the structure of soil, and increase the water holding capacity of the soils and sponges of the mountains. This will allow for a more regular water release into the rivers and dams and therefore for more satisfactory river flow in the dry periods. The reduction of soil erosion will also reduce the rate of silting of the major dams.

The need for investigational work on the natural vegetation of the country, particularly those parts which are heavily over-taxed by grazing, has been recognized years ago. Since January 1966 special studies, which are now in progress, have been initiated. These studies include the stabilisation and improvement of natural pastures and the establishment and management of artificial pastures.

During the period of the plan, the present work on pasture research and management will continue, more or less along the same lines; but at the same time it will be further extended to include grazing control for the whole Oxbow Catchment and the headwaters of the Orange River.

A summary of the principal points of the five year programme is given below.

1. Lowlands

Research will continue at Maseru Experimental Station to produce recommendation for the Extension Service. These recommendations will be applied at the Training Farm, established dairy schemes, and later extended to mixed farming and dairy enterprises, which as anticipated will develop in the lowland and foothill areas. The following phasing is considered: **1970/72** continuation of experimental work. Introduction of findings, where applicable, on Government Training Farms. **1972/73**: Continuation and extension of findings to dairy schemes in operation at this time. **1973/75**: Application of findings to Training Farms and Dairy Schemes, including in-service training of livestock and agricultural extension agents in hay farming techniques.

2. Mountains

(a) Lekubane

This scheme will continue in its present form in order that the long term effects of controlled grazing can be fully studied.

(b) Oxbow

The scheme will continue in its present form in the year 1970/71. From the year 1971/72 the grazing control programme for the whole of Oxbow Catchment will commence.

The project will protect the Oxbow Catchment and improve the grass cover and sponge areas fairly rapidly. The state of the area is not yet bad enough to consider its complete closure to stock, and for both social and economic reasons this will only be considered as a last resort.

The plan for the Oxbow Catchment will include the introduction of regulations by government to ensure the success of the grazing programme and the resulting preservation of grass cover in the catchment area. Areas such as the Oxbow Catchment, and in fact the whole of the upper Catchment of the Orange River, will fall under national control; the responsibilities involved are beyond the resources of local authorities. Cost estimates for the 5-year period are given separately for the continuation of the project and its extension in Tables 7.19 and 7.20.

The total cost of the five year programme is summarized below:

Cost of the Pasture Research and Management Programme

	1970/71	1971/72	1972/73	1973/74	1974/75	Total
Capital	3,850	13,750*	18,850	1,650	1,650	39,750
Recurrent	17,670	38,840	35,428	43,010	37,182	172,130

* The capital cost for 1971/72 is reduced by R7,000, which is the expected receipts from cattle sales in that year.

TABLE 7.19

Pasture Research and Management Estimates: Continuation of the Project 1970/71 — 1974/75

	1970/71	1971/72	1972/73	1973/74	1974/75	Total
I Capital Cost	R	R	R	R	R	R
Fencing	250	250	250	250	250	1,250
Equipment	800	500	500	500	500	2,800
Livestock	300	5,000	300	300	300	6,200
Transport	2,500	—	—	—	—	2,500
Total	3,850	5,750	1,050	1,050	1,050	12,750

II Recurrent Cost

Personal Emoluments

	1970/71	1971/72	1972/73	1973/74	1974/75	Total
Pasture Research Officer	4,440	4,440	4,440	4,440	4,440	22,200
Higher Technical Assistants	900	948	996	1,044	1,052	4,940
Technical Assistants	2,348	2,492	2,636	2,770	2,910	13,156
Storeman Clerk	582	588	636	684	732	3,222
Gratuity, passages etc.	1,100	4,902	2,400	4,922	2,400	15,724
TOTAL	9,370	13,370	11,108	13,860	11,534	59,242

Other Charges

Travelling and Subsistence	600	600	600	600	600	3,000
Vehicle Hire and Maintenance	1,000	1,500	1,500	1,500	1,500	7,000
Seeds and Fertilizers	500	500	500	500	500	2,500
Fodder	1,000	1,200	1,200	1,200	1,200	5,800
Casual Labour	4,200	4,500	4,800	5,100	5,400	24,000
Offices and General	1,000	1,000	1,000	1,000	1,000	5,000
TOTAL	8,300	9,300	9,600	9,900	10,200	47,300
Total Recurrent	17,670	22,670	20,708	23,760	21,734	106,542

Revenue. During the year 1971/72 there will be Revenue in excess of R7,000, resulting from the sale of cattle used on the scheme over the previous three years.

TABLE 7.20
Pasture Management Project for Oxbow Catchment and Headwater of Orange River — 1971/72 — 1974/75

	1970/71	1971/72	1972/73	1973/74	1974/75	Total
I Capital Cost						
Buildings	—	8,000	—	—	—	8,000
Livestock	—	3,200	—	—	—	3,200
Fencing and Crushes	—	500	17,500	500	500	19,200
Tools and Equipment	—	2,800	100	100	100	3,100
Transport	—	2,500	—	—	—	2,500
TOTAL	—	15,000	17,800	600	600	34,000
II Recurrent Cost						
Personal emoluments	—	3,840	3,960	4,080	4,200	16,080
Pasture Grazing Control Officer,	—	1,176	1,272	1,368	1,464	5,280
Technical Assistants—	—	552	588	636	684	2,460
Storeman/Clerk	—	3,602	2,400	6,572	2,400	14,974
Passages, Gratuities etc.	—	9,170	8,220	12,656	8,748	38,794
TOTAL	—	17,138	20,440	24,656	27,492	89,326
Other Charges						
Travelling and Subsistence	—	500	500	500	500	2,000
Vehicle Hire and Maintenance	—	2,000	2,000	2,000	2,000	8,000
Fodder and Drugs	—	500	500	500	500	2,000
Casual Labour	—	3,000	2,500	2,600	2,700	10,800
Office and General	—	1,000	1,000	1,000	1,000	4,000
TOTAL	—	7,000	6,500	6,600	6,700	26,800
Total Recurrent	—	16,170	14,720	19,256	15,448	65,594

7.2.10 Animal Health

There are two major problems which have a direct bearing on the development of the livestock industry; one is the control of internal and external parasites and the other the establishment of an investigation centre. External parasites affecting the wool and mohair industry in Lesotho are sheep ked in sheep and lice in goats and, of recent introduction, the paralysis tick. A Ked Eradication Scheme is now in operation. However, small stock dipping was allowed to fall into disuse and the dip tanks constructed during the sheep scab campaign were put out of action. Many of these tanks will again be put into use, and new ones constructed.

A Helminthiasis Research Project for control of internal parasites has been going on since 1967. This project is due to end in 1970. There are certain lines of research of the follow-up type, which must continue much longer but this research could be carried out in the Investigation Centre (see below) without any additional costs.

Implementation of the findings is planned to begin from the year 1971/72 with an initial coverage of about 10% of the sheep population. This will increase to 35% by the end of the plan period. It is estimated that a special fund of R35,000 will be sufficient to implement the scheme. The details of management of this fund (and the other special funds for which provision is made in the plan) will be studied in connection with the establishment of the Development Bank. The Livestock Centres could greatly facilitate the collection of the fees from farmers, if proper arrangements are made.

Research work is also being carried out on the eradication of a type of snail, which is a carrier of the liver fluke disease of small stock. The implementation of findings in selected areas which seem to suffer most from the disease, will also begin in the year 1971/72. Liver fluke is not spread as widely as helminthiasis and the costs of controlling it will be limited. The annual expenditure for chemicals, spraying equipment and labour is estimated at about R4,500.

In addition, for the application of both the helminthiasis findings and the liver fluke findings, about R4,600 will be needed annually for two years to cover personal emoluments of a Stock Inspector, whose services are necessary at the initial phase of implementation of the two schemes. Since the beginning of 1971 the activities of the existing Laboratory will be expanded and made more general disease investigational in nature. This laboratory will be converted into a properly equipped Veterinary Investigation Centre, which will undertake a broader disease survey amongst domestic livestock. The Veterinary Investigation Centre will, in particular:

- (a) carry out a complete survey of domestic animals;
- (b) investigate the problem of infertility in the ruminant and
- (c) develop a diagnostic service.

The objective is to determine the cause of losses and low productivity in livestock, so that appropriate control measures may be taken to improve lambing, calving and survival rates.

Staff expansion is necessary for the provision of adequate veterinary field coverage and extension work so as to ensure that farmers receive the necessary guidance. The cost estimates for the establishment of the Veterinary Investigation Centre are presented in Table 7.21.

TABLE 7.21

Cost of establishment of Veterinary Investigation Centre

	1970/71	1971/72	1972/73	1973/74	1974/75	Total
	R	R	R	R	R	R
I. Capital						
Laboratory Equipment	8,000	—	—	—	—	8,000
Vehicle	2,900	—	—	—	2,900	5,800
Total Capital	10,900	—	—	—	2,900	13,800
II. Recurrent Cost						
Personal Emoluments	13,787	25,626	26,460	27,780	29,170	122,823
1 Veterinary Officer						
1 Laboratory Technician						
2 Laboratory Supervisors						
3 Laboratory Assistants						
1 Livestock Assistant, Clerk, Driver and other Supporting Personnel						
Other recurrent cost (Furniture, expendable equipment, maintenance etc.)	5,250	13,308	16,408	16,700	16,300	67,966
Total Recurrent	19,037	38,934	42,868	44,480	45,470	190,789

7.2.1. Livestock Improvement Centres

The livestock improvement scheme has been largely based on the Livestock Improvement Centres staffed by trained Livestock Assistants and situated at strategic points throughout the country. The policy is to strengthen the whole network of Livestock Centres so as to enable them to coordinate the livestock programmes and veterinary services in each area. This involves the improvement of existing centres and also the establishment of new ones. Ten new Livestock Centres are planned to be set up over the five-year period, at the following places:

1. Rampai, in Butha-Buthe district
2. Chaena, in Leribe district
3. Lesobeng in Maseru district
3. Abele in Maseru district
5. Qabane in Mohale's Hoek district
6. Libobeng in Qacha's Nek district
7. Lekorana in Qacha's Nek district
8. Semenanyana in Mokhotlong district
9. Mechalleng in Mokhotlong district
10. Popa in Mokhotlong district.

Three new centres will be built each year during the period 1972/74 and four new centres during the year 1974/75.

The total capital cost for the new centres and also the repair and improvement of the existing ones is estimated at R87,000

The recurrent expenditure for the operation of the new centres is expected to develop as follows (in thousand Rands).

	1973/74	1974/75	Total
Personal Emoluments (Livestock Officers and Assistants)	21,654	32,481	54,135
Other Charges* (Maintenance, Purchases of fodder etc.)	15,556	23,334	38,890
Total	37,210	55,815	93,025

* Drugs and vaccines are subtracted from "other charges" since they are covered by fees paid by stock owners.

Access tracks will be built to the Livestock Centres under the Food Aid Programme (See 13.1.4.)

7.2.12 Woolsheds and sheep shelters

The government woolsheds have been operating since about 1950, with little or no maintenance. In view of their importance for the preparation and marketing of wool and mohair, provision

is made to put them in good working order by carrying out all necessary repairs. At the majority of woolsheds better shelters for sheep waiting for shearing and sheep pens will be erected.

7.2.13. Marketing of Livestock and Livestock Products

Experience has shown that existing methods of marketing livestock and livestock products and of the supply of replacement stock are completely inadequate. These methods do not ensure the best possible returns to the producer and the maximum contribution of livestock to the national income. At the same time the importation of poor quality animals leads to continuous deterioration of the national herd.

The introduction of direct marketing for cattle since 1967 has led to a substantial increase of cattle exports. Cattle marketed directly received an average net price of R70 per animal, while animals marketed through speculators brought R45 per head, including the value of animals given in exchange. However, the bulk of the cattle trade still consists in bartering mature cattle for young stock plus a modest cash payment. The expansion of direct marketing through co-operatives is difficult, mainly because replacement stock is not provided. There are even cases of farms going back to speculators who are able to supply replacement stock.

The Government has already decided to establish a single marketing system to be known as Lesotho Livestock Marketing Corporation. This Corporation, which will be a partly owned subsidiary of the Lesotho National Development Corporation, will have the sole right to purchase and export livestock and livestock products and will be permitted to appoint agents for that purpose. Marketing of wool and mohair and hides and skins will also be undertaken directly by the Corporation. The Corporation will have the exclusive right to import livestock, except for direct importation by the Ministry for its own use. It will set up a number of buying centres throughout the country and make available suitable replacement stock. Co-operative societies will organize the sales of these products to the Livestock Marketing Corporation. The co-operatives will be encouraged to take up share-holdings in the Corporation and thus have a voice in policy.

If marketing is confined to a single channel, illegal exports and imports of cattle will be much more easily controlled. At present many cattle move in and out of the country without any control, whatsoever. Therefore the Marketing Corporation would also be instrumental in reducing stock theft.

It is estimated that a proper organization of marketing for cattle alone would yield R200,000 more income to producers. If, in addition to proper marketing, less cattle not ready for the market are exported and fattening is started in Lesotho, the

cattle industry will become one of the principal income generating sectors of the economy.

The establishment of the Livestock Marketing Corporation will also make possible to handle efficiently a levy on exported cattle. At present the cattle industry contributes little to the Government's revenue.

The Livestock Marketing Corporation will be set up in the year 1971/72 and operations will commence during the same year. The Government has already applied to UNDP for an experienced manager for the Corporation. The estimated capital cost for its establishment is given below.

TABLE 7.22

Estimated Capital Expenditure for the Livestock Marketing Corporation

Item		1970/71	1971/72	1972/73
1	1 Landrover	2,500		
2	1 Pickup Truck	1,800		
3	2 Portable Scales	1,000		
4	Office Equipment	1,200		
5	Improvement of stock handling facilities	1,000		
6	Installation of fixed scales at 11 buying centres	5,500		
7	1 Landrover for small stock field manager/buyer		2,500	
8	Erection and improvement of stock handling facilities		6,000	
9	1 Lorry for small stock transport		4,000	
10	Erection of house for small stock field manager/buyer		8,000	
11	1 Landrover for hides and skins field manager/buyer			2,500
12	Erection of house for hides and skins field manager/buyer			8,000
13	Lorry for hides and skins transport			4,000
14	4 fixed scales			2,000
15	Erection of offices			5,000
16	Erection of 3 fodder sheds			1,000
		13,000	20,500	22,500

The current expenditure will be covered by the gross revenue of the Corporation. The working capital needed for its operations is estimated at R400,000. This amount could be provided through short term credit to LMC by South African buyers or by the commercial banks.

7.2.14. Industrial Processing

The improvement in livestock productivity will make possible industrial processing of some livestock products. There are a number of possibilities, as indicated below.

- (a) **Abattoir.** For each animal sent to an abattoir in the Republic the marketing costs plus insurance, slaughterhouse fees, commissions etc. amount to about R10. Furthermore, the animals lose weight while travelling. These and other considerations justify a feasibility study for the establishment of an abattoir in Lesotho large enough to provide for meat exports. However, the actual establishment of this plant will have to take place only after considerable improvement in livestock management and feeding is done, so that an adequate supply of good quality animals could be secured to support a sizeable unit. The immediate necessity is to establish a small abattoir in Maseru to cope with the needs of the town's rapidly growing population. The urgency of this project is underlined by the extremely unsatisfactory state of the present slaughterhouse. The cost of the Maseru abattoir is estimated at about R85,000. In addition the field slaughter houses need to be improved considerably. The cost for such improvement is estimated at R24,000.
- (b) **Tannery and skin pullery.** The feasibility of this project could be examined in connection with the Maseru abattoir.
- (c) **Wool washing plant.** The establishment of a wool washing plant is an important precondition for improving wool classification and thus securing a higher revenue from wool production. Wool washing could be combined with the manufacturing of blankets and rugs for the local market, by using low grades of wool.
- (d) **Wool and mohair manufacturing.** Because of the good demand prospects for wool and mohair exports, any plans for local manufacturing should proceed cautiously and at an experimental scale. Lesotho has a good place in the foreign market of wool and mohair, which she cannot afford to lose, by embarking into a large scale manufacturing of these products, under rather uncertain market prospects.

- (e) **Dairy industry.** The total annual value of fresh milk imported from the Republic is about R500,000. An improvement in the cattle industry is expected to provide a base for the gradual replacement of these imports with local production. Available information indicates that there exist already possibilities for establishing a number of experimental dairy plants in various places. The first step will be the construction of a unit in the Maseru area with UNICEF's assistance. The total monthly consumption of fresh milk in Maseru is estimated at 26,000 gallons. This amount could be easily covered by the monthly production potential of the Maseru area.

7.2.15. Livestock Production Survey

Though a certain amount of basic information about Lesotho's livestock production is available, reliable statistical data which are essential to the planning of projects are lacking. For this reason a survey will be carried out, particularly in order to establish the facts concerning the production and marketing of wool, mohair, hides and skins and cattle.

The survey will be part of the Agricultural Census Programme which will be carried out by the Bureau of Statistics.

7.2.16. Exports/Imports

The present situation as regards foreign trade of livestock and livestock products, and projections for the year 1975, are shown in Table 7.23.

TABLE 7.23

Livestock Sector: Exports/Imports (In Thousand Rands)

	Present Situation*		1975	
	Exports	Imports	Exports	Imports
Live animals (including breeding stock,)	1,090	570	1,600	400
Products** (wool mohair etc.)	2,000	620	3,500	700
Total	3,090	1,190	5,100	1,100
Surplus	1,900		4,000	

*Average for recent years

**Manufactured products excluded

The substantial increase in the country's trade surplus by the end of the 5-year period is expected to result mainly from an improvement of exports of livestock and livestock products.

7.2.17. Financial Summary

The total capital and recurrent cost of the livestock five-year programme is set out in summary form in Tables 7.24 and 7.25, respectively.

TABLE 7.24
Development Programme for Livestock 1970/71 — 1974/75
Capital Cost (R)

	1970/71	1971/72	1972/73	1973/74	1974/75	Total
1. Sheep Breeding Stations (a) Mokhotlong Station (b) New Station	12 100 —	8 200 —	— 54 000	— 20 000	— 10 000	20 300 84 000
2. Goat Breeding Station	—	—	—	50 000	30 000	80 000
3. Cattle Breeding Station	24 000	60 000	—	50 000	40 000	174 000
4. Dipping	17 900	9 900	—	—	—	27 800
5. Livestock Centres	—	—	27 000	27 000	33 000	87 000
6. Woolsheds and Shelters (Repairs and Equipment)	17 000	31 420	27 820	—	—	76 240
7. Promotion of Wool and Mohair Industry (Breed animals etc.)	22 000	4 000	4 000	4 000	4 000	38 000
8. Pasture Research and Veld Management	3 850	13 750	18 850	1 650	1 650	39 750
9. Poultry Plant	11 500	—	—	—	—	11 500
10. Hides and Skins	5 180	—	—	—	—	5 180
11. Veterinary Investigation Centre	10 900	—	—	—	2 900	13 800
12. Helminthiasis	—	35 000	—	—	—	35 000
13. Liver Fluke	—	4 500	—	—	—	4 500
14. Livestock Marketing Corporation	13 000	20 500	22 500	—	—	56 000
15. Maseru Abattoir	—	85 000	—	—	—	85 000
16. Field Slaughter Houses	—	—	14 000	10 000	—	24 000
17. Fishery Development	12 040	—	—	—	—	12 040
18. Livestock Offices	1 000	9 500	4 000	—	—	14 500
	150 470	281 770	172 170	162 650	121 550	888 610

TABLE 7.25
Development Programme for Livestock 1970/71 — 1974/75
II Recurrent Cost* (R)

	1970/71	1971/72	1972/73	1973/74	1974/75	Total
1. Sheep Breeding Station	—	5,900	7,000	2,000	—	14,900
a) Mokhotlong Station	—	(10,000)	(10,000)	(10,000)	(10,000)	(40,000)
b) New Station	—	-4,100	-3,000	-8,000	-10,000	-25,100
2. Cattle Breeding Station	1,500	8,500	9,500	5,000	7,000	34,500
3. Dipping (Net recurrent)	—	(12,000)	(17,000)	(17,500)	(10,000)	(66,500)
4. Livestock Centres	—	-3,500	-7,500	-12,500	(30,000)	(53,500)
5. Woolsheds	—	—	9,000	8,000	7,000	24,000
6. Pasture Research and Management	—	—	—	37,210	55,815	93,025
(a) Continuation	17,670	22,670	20,708	(43,210)	(64,915)	(108,025)
(b) Oxbow Catchment	—	16,170	14,720	-6,000	-9,000	-15,000
7. Helminthiasis (Continuation)	24,167	—	1,500	3,000	4,500	9,000
8. Helminthiasis (Liver Fluke Implementation)	—	4,000	4,000	—	—	8,000
9. Veterinary Centre	19,037	38,934	42,868	44,480	45,470	190,789
10. Accounting Management of Special Funds	—	4,000	4,000	4,000	4,000	16,000
11. Fishery Development	5,287	7,716	6,858	—	—	19,861
Total Recurrent Cost	67,661	107,890	120,154	146,700	170,967	613,372

*The positive figures in brackets represent total recurrent cost to the project. The negative figures represent total revenue to the project, while positive figures without brackets represent the net recurrent cost.

7.3. AGRICULTURAL PLANNING, EXTENSION AND TRAINING

7.3.1. Agricultural Development Planning

Agricultural Development Planning will include:

- (1) economic surveys;
- (2) collection of agricultural statistical data for planning;
- (3) design of ad hoc or short term economic policies;
- (4) plan and programme preparation and priorities setting on the basis of comparative analysis and determination of priorities of alternatives;
- (5) supervision of plan and programme implementation;
- (6) reporting on plan progress;
- (7) any other function related to agricultural development planning.

Administratively these functions have been entrusted to the Programming Unit of the Ministry of Agriculture (see Chapter 5) which Unit will perform its duties in close co-operation and consultation with all the Ministry departments and with the Central Planning Office.

7.3.2. Land Use Planning

Circumstances in Lesotho, particularly the scarcity of land resources and their rapid deterioration due to malpractices, make the introduction of land use planning a necessity. The aim of such planning is to investigate land use potential through pedological and topographical studies and to plan the optimum use of land resources. This implies the development of agricultural and livestock systems best suited to environmental conditions and conducive to the conservation of the natural resources of the country. Land use planning will be based on data relating to the following matters:

- (a) **Climate:** including rainfall and temperatures, frost, hail and drought hazards etc.;
- (b) **Ecology:** plant population of natural environments and effect of grazing practices on plant types.
- (c) **Autoecology:** climatic and soil requirements of major and economic crops and zoning of possible production areas in the country;
- (d) **Soils:** their potential for crop production;
- (e) **Sociological aspects** of rural population.

The systematic investigation of the biological and physical characteristics of the natural resources and the production systems which fit in with the limitations of local environment conditions will greatly improve the economics of agricultural production and the design of the development plans. Furthermore, information collected on the biological and physical aspects of the land and on long term development objectives in agriculture will be useful when the land tenure system comes under review.

Land Use Planning activities will be related to the following agroecological zones:

- (a) Upper mountain grazing;
- (b) Lower mountain grazing;
- (c) Mountain village zone;
- (d) Foothills and
- (e) Lowlands.

Each one of these zones has special land use problems. Such problems are e.g. devising the proper system of conditional grazing in order to restore the vegetational cover; the introduction of special protective measures, such as fencing, silt trapping or closure to stock followed by a revision of the grazing system, in the case of important headwater catchments; control and stabilisation of important drainage lines in relation to the needs of local villages; reorientation of the pattern of farming to fit in with local geology; removal from grazing or cultivation of such areas as are unsuitable for that purpose and in need of reclamation; and replanning the distribution of villages and communications.

A Land and Water Capability Survey will precede the land use planning activities in order to obtain information on the following:

- (a) crop production potential of the country;
- (b) conservation needs;
- (c) water availability of the major catchments of the lowland zone, particularly in order to relate the yield of these rivers to agricultural and non-agricultural water requirements. The UNDP/SF water resources study is expected to cover this aspect adequately.

7.3.3. Extension Services

In view of the key role of the extension services in the implementation of the agricultural development programme, the whole pattern of work will be re-designed. These services must

become a decisive agent for modernization of agricultural production practices, within the context of development and land use planning. The close co-operation between Extension Services and the Technical Divisions, and in particular with the research sections of the Ministry will be ensured. The whole programme of Extension Services will be re-examined carefully with the above considerations in mind.

7.3.4. Agricultural Information Services

The Agricultural Information Service, being a special form of extension, will be co-ordinated with the development planning and extension services. The Agricultural Information Service has in the past been outside the main body of the Ministry, and has incurred a rapid increase in both capital and recurrent expenditure. In future its size, scope and development will be in line with the development of the other services of the Ministry.

7.3.5. Young Farmers Clubs

These Clubs are intended to educate young farmers in agriculture, conservation and applied nutrition.

Eighty clubs, with approximately 50 members each, have been formed in the country. The clubs undertake project work, gardening, tree planting, gully stabilisation and fertiliser demonstration. This movement will be further developed and encouraged. Financial assistance to young farmers to start practising what they learn in the six month courses at the Farmer Training Centres will be given in the form of loans. An annual amount of R15,000, for five years, beginning in 1971/72, will be granted to build up a revolving fund of R60,000 in order to assist young farmers to make a start in farming. It is estimated that about 70 to 80 young farmers per year will be helped by this scheme. In addition, capital will be provided from the fund for implements, which will be shared by young farmers groups.

A detailed programme, determining forms of assistance and alternative ways of spending the loans will be prepared by the responsible service of the Ministry of Agriculture.

If this scheme proves to be successful, it may be expanded within the 5-year period

7.3.6. Farmer Training Centres

An Oxfam grant of R163,000 has been used to cover the construction and equipping of two Farmer Training Centres at Leribe and Mohale's Hoek and to provide for their recurrent expenditure up to September 30th, 1968. Since this date the recurrent costs of the two centres have been met from the country's budget.

Each of the centres can accommodate 40 farmers for a week's course and also 12 — 16 young farmers for a six month's course. Since the middle of 1970 two new centres have been in operation, at Matela and Qacha's Nek.

The results of the work of the already established Farmer Training Centres are encouraging, and in the light of this experience a further expansion of the scheme is planned for the five-year period. One more centre will be established at Mokhotlong. The total capital cost (buildings, furniture, equipment, transport etc.) is estimated at R45,000 to be spent during the years 1972/73. A rough estimate of the additional recurrent expenditure for the two new centres and the one to be constructed, are given below:

	1970/71	1971/72	1972/73	1973/74	1974/75	Total
Qacha's Nek and Matela	10,000	10,500	11,000	11,500	12,000	55,000
Mokhotlong				5,000	5,400	10,400
TOTAL	10,000	10,500	11,000	16,500	17,400	65,400

7.3.7. In-Service Training of Staff and Training Farms

The Ministry of Agriculture undertakes in-service training in its different fields of responsibility. These include culture of crops, fruits and vegetables, irrigation farming, pasture practices animal husbandry and farm planning and management. Where circumstances demand, arrangements are made for special courses. Training in integrated farming practices to prepare the Agricultural Extension Agents for their task as advisory agents on general agriculture will be provided in practical courses at the Training Farms. These farms are also used for demonstration purposes on farmers' days.

7.3.8. Lesotho Agricultural College

The college is the training centre for all junior extension agents in the country. Over the next five years the college will continue with its recently initiated programme, taking 30 men per annum with about 25 graduating each year. The total establishment of the Ministry for Grades C4/3/2 and B5/4/3 is about 452 posts. Allowing for a 6% "wastage", due to retirement, dismissal and resignations, the present capacity of the college for producing certificated students in Agriculture meets the Ministry's needs.

Although a diploma course is not necessary for the time being it is the intension gradually to upgrade the present certificate course to the level of an agricultural diploma. This will necessitate raising the educational standard for admission to the College.

In the present courses, insufficient emphasis is being given to agricultural economics, marketing and co-operatives. These important aspects will be covered by the recruitment of an agricultural economist, who will also assist in College Farm costings.

It is also proposed to collaborate with the Ministry of Education in providing agricultural training at the College to prospective school teachers.

7.3.9. Applied Nutrition, Nutritional Education, Home Economics

The Applied Nutrition Programme is a long term educational project, aimed at teaching adults and youth in and out of school the nutritional requirements of the body, using locally produced foods. The programme was started in 1962 as a result of the findings of a team of experts who surveyed the nutritional situation in Lesotho. The survey showed that malnutrition affected a very large proportion of the population. The Government administers the scheme, which is supported by UNICEF, the FFHC and the British Government, through the Permanent Bureau of Nutrition, an interministerial board. The field staff of the Ministry participating in the food and nutrition scheme is under continuous training in extension methods with the aim of disseminating agricultural knowledge to the rural population.

During its seven years of operation, the scheme has taught the principles of nutrition in the pilot and expansion areas, and to some extent to the rest of the population through the radio, leaflets distributed at agricultural shows, and campaigns at meetings arranged by voluntary agencies and organisations.

Much more work will be done through the gradual expansion of the programme over the whole country. At present, the area coverage of the programme is only 16%. It is planned to increase this percentage to 60% at the end of the plan period. Financial constraints, training facilities and the availability of teachers do not allow a more rapid expansion. For the planned expansion, the staff of the nutrition programme will increase gradually from 26 (at present) to 40, by the end of the period. Two more Home Economics Supervisors will be recruited, one from 1972/73 and the other from 1974/75. The estimated recurrent cost of this expansion is given below.

	1970/71	1971/72	1972/73	1973/74	1974/75	Total
Personal emoluments, transportation etc.	3,000	4,000	4,700	6,700	6,600	25,000

The capital, which will mainly consist of new transportation means (1 bus, 2 landrovers, two motor cars and 20 bicycles), is expected to be covered by UNICEF assistance.

More effective co-ordination of the efforts of the Ministries which have a bearing on nutrition and also of the voluntary organisations is planned. The machinery for co-ordination exists in the Permanent Bureau of Nutrition. The Bureau will lay a clear nutrition policy and map out areas of responsibility for each Ministry or department.

An effective executive will be appointed for the Bureau, to assemble policy matters from all Ministries and follow up the decisions of the Bureau. U.N. Technical Assistance (preferably at an OPEX basis) will be requested for this work.

It should be noted that the nutritional situation in Lesotho was surveyed more than ten years ago by a technical assistance mission; nutritional policy is still based on the findings of that mission. A new assessment of the country's nutritional situation is required, in order to have a firm basis for redesigning the Government's nutritional policy. A short term FAO-WHO Mission will be requested.

7.3.10. Financial Summary

Capital and recurrent cost requirements for the implementation of the development proposals included in this chapter are shown in table 7.26 and 7.27. Estimates for Extension Services and Agricultural Information are not included, because the implication of reshaping the structure of these services have not yet been worked out.

TABLE 7.26
I Capital Cost (in R)

	1970/71	1971/72	1972/73	1973/74	1974/75	Total
1. Young Farmers clubs	—	15,000	15,000	15,000	15'000	60,000
2. Farmer training Centres	—	—	45,000	—	—	45,000
3. Agricultural College						
—New men's staff housing, furniture	—	54,700	—	—	—	54,700
—Improve-ment of college buildings and equipment	—	15,000	—	—	—	15,000
TOTAL	—	84,700	60,000	15,000	15'000	174,700

TABLE 7.27
II Recurrent Cost (in R)

	1970/71	1971/72	1972/73	1973/74	1974/75	Total
1. Farmer Training Centres	10,000	10,500	11,000	16,500	17,400	25,000
2. Nutrition	3,000	4,000	4,700	6,700	6,600	25,000
3. Agricultural College (Personal Emoluments etc.)	—	4,384	4,384	4,384	4,384	17,536
TOTAL	13,000	18,884	20,084	27,584	28,384	107,936

7.4. RURAL DEVELOPMENT AND THE COOPERATIVE MOVEMENT

7.4.1. Introduction

There is a wide variety of cooperative and semi-cooperative organisations operating in Lesotho. Cooperatives include savings and loan associations, thrift and credit societies, credit unions,

marketing societies, consumer societies, artisans' cooperatives, a savings and housing society, banking societies and tractor owners associations. All of these are officially registered societies in terms of the 1948 Proclamation on Cooperative Societies. Other associations, which are not registered as cooperative societies, include farmers' associations, wool and mohair growers' associations a livestock farmers' association and a poultry farmers' association.

The cooperative movement suffers from a number of weaknesses. Management in many societies is poor; they have had limited access to finance; the relations between the primary societies, the various secondary societies and the government owned Finance and Marketing Cooperative Union (FMCUL) have not been entirely satisfactory. There has been a lack of clarity about the relations between farmers' associations and cooperative societies. But despite these weaknesses, Lesotho possesses in its existing cooperative movement an important base for future advance.

7.4.2. Functions of the Cooperative Movement

The functions which cooperative societies can most valuably perform are those which involve activities which are beyond the capabilities of the individual operating alone. These include:—

- (a) the mobilisation of savings for credit and obtaining credit from sources outside the community;
- (b) the organisation of marketing so as to yield greater benefits to the producer or consumer;
- (c) the performance of agricultural or other operations jointly where it is profitable to do so;
- (d) the planning and implementation of development projects of benefit to the community.

7.4.3. Government Policy

It is Government's policy to provide guidance, advice and general supervision for the cooperative movement. In the long run, the societies should be fully self-supporting in terms of both finance and management, but in view of the present weaknesses of the movement some government assistance is needed. This policy will involve the following:—

- (a) the legislation governing the operation of cooperative societies will be revised where necessary so as to ensure that Government has the powers necessary to maintain the health of the movement;

- (b) the Ministry of Agriculture will strengthen its administration for providing technical assistance to cooperatives in such matters as bookkeeping, secretaryship, financial management and so on;
- (c) government will institute a programme of education in the principles and methods of cooperation;
- (d) new areas of activity, where cooperative types of organisation can perform a useful function, will be identified and measures will be taken to promote the establishment of the necessary societies;
- (e) existing semi-cooperative organisations (such as farmers' associations) will be encouraged and assisted to become fully organised and registered cooperative societies

7.4.4. Areas of Cooperative Activity

There are a number of types of activity where Government considers that the cooperative movement can play a particularly important role. These include supply, marketing, credit, and the protection of catchment areas.

FMCUL has a valuable part to play in helping the societies in the fields of supply, credit and marketing. It is Government's policy both to strengthen FMCUL and transform it from a Government agency into a cooperative society. The functions of a strengthened FMCUL will include the provision of machinery through which some of the financial aid to the cooperative movement may be channelled, the bulk purchase of supplies on behalf of societies, the coordination of policies, marketing, the arrangement of contracts on behalf of societies, and the provision of such other services as the societies may from time to time require.

The other organisations which will be established in the field of marketing and credit will work closely with the cooperative societies. The cooperative movement will form an integral part of the marketing arrangements to be established for livestock (see 7.2.13). The cooperatives will be designated as buying agents for the Corporation, and will also handle imported replacement stock. As other marketing bodies are established (e.g. for grain), both primary and secondary cooperatives will be closely involved in their working. The Development Bank will also lend to well-run cooperatives for on-lending to their members, either directly or through FMCUL. Credit and marketing societies in particular may be able to provide the type of security which the Bank will require.

Government considers that there is considerable scope for cooperatives in the field of community development, and in particular in the work of soil and water conservation. These are mat-

ters of common interest to the rural communities. Individual action is inadequate and community action is therefore needed. As the physiography of Lesotho dictates that the only effective way to combat erosion and stabilise soil and water resources is by means of effective catchment control and management, there would be substantial advantage in the establishment of cooperative organisations based on the natural physiographic catchment units. The government will encourage and assist the people to form themselves into Catchment Associations. These bodies will ensure that all constructive operations in each catchment area are closely integrated and that conservation and development programmes are integrated with improved agronomic practices.

7.4.5. National Cooperative Council

Ultimately a National Cooperative Council will be formed as the body entrusted with the supervision of the cooperative movement. At present the movement is not sufficiently developed to justify this step. Meanwhile the Department of Cooperatives will fulfil this function.

7.4.6. Ministry of Agriculture, Co-operatives, Marketing and Community Development

To enable the Ministry effectively to discharge the task assigned to it, certain sections of the Ministry will be combined. Thus the sections for community development, co-operatives, marketing, farmers' training centres, young farmers clubs, youth service, home economics and nutrition will be combined into a single close-knit division which will also be strengthened for the purpose of promoting rapid co-operative development.

7.4.7. Financial Implications

The implementation of the programme on co-operatives and community development will increase credit requirements considerably. At this stage it is however, difficult to make a reliable estimate of what will be needed. Some indicative figures are given in the section of the plan on savings and credit. The capital and recurrent costs of the programme are given in Table 7.28 below. The cost for the catchment associations includes capital which is in addition to the capital estimates presented in sub-sections 7.1.7 and 7.1.8 of the plan.

TABLE 7.28
Cost Estimates for Co-operatives and Catchment Associations

	Rands					
	1970/71	1971/72	1972/73	1973/74	1974/75	Total 5 years
CAPITAL						
Rural Offices and Housing	—	30,000	30,000	40,000	40,000	140,000
Workshops, Craft Centres	10,000	12,000	10,000	15,000	15,000	62,000
Catchment Associations	—	10,000	115,000	230,000	400,000	755,000
TOTAL	10,000	52,000	155,000	285,000	455,000	957,000
Additional Recurrent						
Education, Training and Information	—	20,000	27,000	33,000	40,000	120,000

7.5. Financial Summary

Tables 7.29 and 7.30 summarize the capital and government recurrent expenditure of the 5-year agricultural programme.

TABLE 7.29

5-Year Agricultural Development Programme I Capital Cost In R'000

	1970/71	1971/72	1972/73	1973/74	1974/75	Total
1. Crop production, Irrigation soil conservation	309	1,203	1,234	971	770	4,487
2. Livestock production	149	287	170	153	122	881
3. Agricultural training and education	—	85	60	15	15	175
4. Co-operatives and Catchment Associations	10	52	155	285	455	957
TOTAL	468	1,627	1,619	1,424	1,362	6,500

TABLE 7.30

5-Year Agricultural Development Programme II Recurrent Costs in R'000

	1970/71	1971/72	1972/73	1973/74	1974/75	Total
1. Crop production, irrigation, soil conservation	52	131	149	164	172	668
2. Livestock production	67	109	118	147	170	611
3. Agricultural training and education	13	19	20	28	30	110
4. Co-operatives and catchment Associations	—	20	27	33	40	120
TOTAL	132	279	314	372	412	1,509

8 INDUSTRY AND COMMERCE

As has been emphasised in Part I of the Plan, a major aim during the Plan Period will be the provision of 10,000 to 15,000 new jobs, mainly in non-agricultural activities. Of the 5 percent per annum minimum increase in Gross National Product, at least 1.9 per cent annum will be derived from non-agricultural activities. The greater part of this growth must be in the industrial, commercial and tourist sectors, unless decisions are taken by Rio Tinto and Lonrho for a substantial increase in mining investment. The mining sector is, however, unlikely to contribute greatly to the provision of jobs. Since industry in particular makes such a small contribution to incomes and employment at present, this implies a substantial proportionate growth in this sector, even though the absolute amounts involved are not large. Much of the work in these sectors is expected to be of an investigational and exploratory type; this will lay the foundation for more substantial growth in the next plan period.

8.1. INDUSTRY

8.1.1. Manufacturing industry in Lesotho is on a very small scale. Value added in manufacturing in 1967 was estimated at some R300,000 — about 0.7% of GDP. Employment in manufacturing industry averaged 550 with total earnings of about R200,000, which was equivalent to about 1.5% of total wages and salaries in Lesotho. There has been some progress since then. A number of industries have been established or are planned. These include tyre retreading, candles, mohair carpet weaving, maize milling, brewing, fertilizer mixing, furniture, pottery, shoes, electric lights, jewellery and clothing. It is, however, doubtful whether the value added in all industries — including handicrafts — in 1969 was as much as 2 per cent of GDP.

Prospects for the establishment of industry in Lesotho are not unfavourable. Lesotho has the advantage of free access to the South African market for manufactures, in addition to the possibility of applying limited protection to its home market under the revised Customs Agreement with Botswana, South Africa and Swaziland. There are no exchange or currency controls. External investors face no restrictions on the remittance of dividends or the repatriation of profits. The Basotho are readily trainable for many industrial operations, and may be employed at all levels of skill and responsibility.

On the other hand, Lesotho has few raw materials apart from wool, mohair, some other agricultural and livestock products, clay, diamonds and some semi-precious stones. Transport costs to the principal external market — the Johannesburg area — are high. There is a lack of local entrepreneurship and industrial know-how, and a shortage of people with technical and scientific qualifications. Existing financial institutions and technical advisory services are inadequate for assisting local industry. Moreover at the present stage of development new industries have few internal linkages in the economy — i.e. they obtain most of their inputs from outside the country and most of their output is exported. Thus the secondary, indirect effects of the establishment of new industries on the encouragement of other industries has so far been very limited.

Surveys of industrial possibilities suggest a number of industries whose prospects appear *prime facie* to be favourable. These include import substitution industries such as clay and cement products, various textiles and garments, meat processing, tanning and leather products, various food products and agricultural implements — and export industries such as wool and mohair processing and diamond processing. The Government plans to investigate these possibilities in detail.

The principal measures which have been taken by the Lesotho Government to encourage and promote industry have been as follows:

- (a) The Lesotho National Development Corporation (L.N.D.C.), established in 1967, has been the principal agent for new industrial development. Virtually all the manufacturing industry established since then has been a result of its operations. It is principally concerned with the type of industry for which outside capital is required, and assists such investment by acting as an intermediary with government departments, by the negotiation of concessions, and through its own participation. The total value of industrial investment which it has promoted so far is of the order of R1.5 million, including the value of its own participation.
- (b) The Village Industries Development Organization (VIDO) helps in the production and marketing of handi-craft products.
- (c) legislation has been passed to provide special incentives for new industry. The principal concessions include:—
 - (i) Under the Pioneer Industries Encouragement Act, either a six year tax holiday, or a greatly accelerated depreciation allowance on machinery plus a 45% machinery investment allowance, a 75% buildings investment allowance and a 45% allowance on

industrial housing. There are also allowances on the cost of infrastructure services, transport, training and the wage bill.

- (ii) Under the Industrial Licensing Act, an exclusive licence may be given to manufacture a product for five years, renewable for a further five years.
- (d) In view of the difficulties which were experienced in the past in finding land for industry with a reasonable security of tenure, a 50 year lease was granted to Basutoland Factory Estates (BAFED) for an industrial area in Maseru. This has now been transferred to L.N.D.C. for an indefinite period. L.N.D.C. has also acquired an area for industrial development at Ficksburg Bridge. Accommodation has been provided for craftsmen at the Maseru market.

8.1.2 Industrial Policy and Programme for the 5-year Period

A. The Lesotho Government's policy is designed to encourage and assist the growth of industry in such a way as to provide the maximum benefit for the local economy. The criteria which will be applied in granting tax concessions or other aids to industry will be as follows:—

- (a) *The provision of jobs.* This must be the principal short-term consideration in industrial development policy. It is not, however, defined solely in terms of numbers employed; the level at which they are employed is also taken into account. Thus not only are tax reliefs granted for training programmes, but the granting of pioneer industry or other concessions will be conditional on the drawing up and implementation of agreed programmes for the training of Basotho for skilled and responsible positions.
- (b) *The effect on incomes and growth.* This overlaps to some extent with the provision of jobs, but takes longer term factors into consideration. Thus the immediate and direct impact of a particular industry on local employment may be small, but it may have an important indirect impact on growth. This will apply, for example, to an agricultural processing industry which helps to improve the market for local agricultural products, or to other industries with important potential linkages with other parts of the economy, or which gives rise to other external economies.

At the present stage of development, foreign capital and enterprise must inevitably play a leading role in industrial growth. The Lesotho Government recognises the importance of

the foreign investor in promoting industry. It considers, however, that it is important that there should also be a local stake in manufacturing industry. This is provided to some extent by the L.N.D.C.'s participation (in some instances up to 100%) in new industries. In addition to this, Government places great emphasis on the encouragement of Basotho owned and controlled industry. In view of the lack of local industrial experience, this means in the first instance the encouragement of small-scale industries with a modest capitalisation — e.g. R1,000 per worker as compared with an average capitalisation of R7,000 per worker in activities so far sponsored by L.N.D.C. Government will give special consideration to the problems associated with the identification, choice of techniques, and encouragement of industries of this kind. It is also concerned to encourage artisan type small industries at the village or urban level (see also 4.5).

B. The principal direct activities of Government will be the further investigation of possibilities in the type of industry suited to the local entrepreneur, and the provision of special assistance in the establishment of such industries. Specific measures to be taken include the following:—

- (a) The Department of Commerce and Industry will strengthen its capability in the field of small industry. An application has been made to the UNDP for the services of a small industries adviser, whose functions will include the identification of industrial possibilities, the formulation, evaluation and recommendation of industrial projects, and the provision of technical assistance to local actual or potential industrialists. The Department, in cooperation with the proposed Lesotho Technical Institute, will prepare and follow up a training programme required for industrial expansion.
- (b) The Development Bank, when established, will pay special regard to the needs of indigenous industry both for finance and for assistance with the formulation of industrial projects.
- (c) Government has constructed accommodation for craftsmen at Maseru Market. Similar accommodation will be provided at Ficksburg Bridge and Roma. In the light of the experience of the operation of these projects, consideration will be given to the possibility of providing similar facilities in other centres. Estimates of the total cost of these centres are not yet available.
- (d) Consideration will be given to the expansion of VIDO's operations by increasing its storage and sales facilities. Government is giving consideration to the possibility of reorganising VIDO as a Cooperative Society. Technical assistance will be required for the increase of its

promotional activities. The costs involved have not yet been estimated.

C. Over the quinquennium, L.N.D.C. plans to invest R3,000,000 in industry, and hopes to attract private investment to a substantial multiple of this amount. It will develop the industrial areas at Maseru and Ficksburg Bridge by the provision of basic services such as roads, water, drainage and sewerage. It is estimated that R450,000 will be spent on these services. This will include R250,000 at Maseru and R200,000 at Ficksburg Bridge. L.N.D.C. will also construct factories for renting by industrialists. Total planned investment on factories is R750,000, including R300,000 at Maseru and R450,000 at Ficksburg Bridge. The phasing of L.N.D.C. expenditure on factories and basic services will be approximately as follows:

TABLE 8.1
L.N.D.C. Factory Area Development
R'000

	1970/71	1971/72	1972/73	1973/74	1974/75	Total
Basic Services	—	450	—	—	—	450
Factory Construction	100	100	150	200	200	750
Total	100	550	150	200	200	1,200

Factory construction will be financed on a commercial basis. The cost of basic services will be met by the users of the factories, but in the first stage when there are only a few factories, it will not be possible to meet the full commercial cost of the services from revenue. Grant or soft loan assistance will therefore be sought for at least part of the cost.

It is not possible to estimate total industrial investment over the plan period. Most of the capital will come from the private sector, and in particular from foreign investors. Thus a major factor will be the degree to which L.N.D.C. succeeds in using its own funds to attract private capital. Since the type of industry started by Basotho entrepreneurs is expected in the first instance to be typically more labour-intensive than that started by foreign investors, such industries could make a significant contribution to the growth of employment at moderate capital cost if Government and the Development Bank succeed in meeting their needs for technical assistance and finance.

8.2. COMMERCE

8.2.1. Present Situation

The main function of commerce in Lesotho has been to act as a channel for the movement of imports and exports. There is at present little internal trade—that is, the movement of commodities from producers to consumers inside Lesotho. Export trade consists principally of the trade in livestock products, other agricultural products and diamonds. Of these, the most important at present are livestock and other agricultural products. These trade problems are considered in chapter 7. This section is concerned mainly with the organization of trade in imports, but takes account of the possibility of increasing internal trade.

The total value added in wholesale and retail trade in 1966/67 was estimated at about R2 million—about 4 per cent of the Gross Domestic Product. Of this trade, by far the greater part is in the hands of a few expatriate firms. According to the results of a survey of small enterprises carried out in 1968, there were 113 “established trading businesses” in Maseru, of which 78 businesses with 312 people were controlled by Basotho, 29 businesses with 613 people were controlled by expatriates (mainly Europeans) and 6 businesses with 44 people were controlled by institutions. Thus expatriate businesses were on average substantially larger than local businesses. Moreover their share of the trade was far greater than these figures would suggest. Of the Basotho retailers recorded, over 80% had a monthly turnover of under R1,200, whereas the turnover of European controlled retailers is estimated to range between R10,000 and R15,000 per month. The disparities are even greater in the wholesale trade, which is virtually entirely in expatriate hands. The foregoing figures cover only Maseru, but the general picture applies to the country as a whole.

Trading in Lesotho is controlled by the Trading Proclamation (No. 72 of 1951). Under it, persons wishing to carry on a trade have to apply for a licence. Licences may be refused for any reason, but the two grounds for refusal specified in the Proclamation are that there are already a sufficient number of persons carrying on the trade in a particular area or that the grant would be “prejudicial to the interests of Africans domiciled in Basutoland.” The legislation allowed conditions to be attached to the granting of licences, but this provision has been rarely used. In particular, expatriate traders have not been required to train their local employees for higher and more responsible positions. Indeed, many such firms employ expatriates even at the counter level.

The weak situation of Basotho traders is due to the following factors:

- (a) Their resources and access to credit are limited;
- (b) many of them lack entrepreneurial and technical experience and skill;
- (c) they suffer from disadvantages in terms of access to supplies — especially since several expatriate retailers are closely associated with wholesale enterprises;
- (d) the criteria for the operation of the licensing system have tended to favour existing suppliers — mainly expatriates. Moreover some of the most favourable trading sites are in their possession.

8.2.2. Government policy and programme for the 5-year period

Government policy for the development of the commercial sector is:

- (a) To increase the income accruing to the sector as a whole by improving trading facilities inside Lesotho and reducing the degree to which people wish to shop in the Republic;
- (b) Within an expanding commercial sector, to assist Basotho traders to increase their scale of operations, efficiency and profitability;
- (c) to increase the benefit accruing to the economy from the activities of expatriate trading companies through for example, the operation of agreed training and localization schemes;
- (d) to examine the legal framework of the trading system so as to bring it more closely into line with the development needs of the sector and the interests of consumers — in particular, by reducing the monopolistic elements in the system.

The principal development proposals are as follows:

Trading Facilities. Improved facilities will be provided for trade in the main towns. L.N.D.C. is examining the possibility of cooperating in the establishment of shopping centres in Maseru and Ficksburg Bridge and an examination is being made of possible further requirements. Government is also planning the construction of an additional shopping centre at Maseru, whose costs are estimated at R172,000. This will be constructed in 1971/73.

Covered markets for small traders will be provided at a number of centres. Priority will be given to markets at Teyateyaneng, Quthing and Peka. Markets will also be built at Marakabei, Mapoteng, Mokhotlong, Morija, Qacha's Nek, Sekake's and Semonkong. These are places where there are already a number of small traders and where the provision of these facilities will be of immediate assistance in encouraging internal trade. The average cost of these markets is R150 per stall; thus a market with 100 stalls costs R15,000. The total cost of these projects is estimated at R92,000, which will be spread evenly over the period 1971/72 to 1974/75. The projects at Teyateyaneng, Quthing and Peka are already under way. The cost of the markets is shown in Table 8.2. It is assumed that work will not start till 1971/72. These trading facilities will be revenue earning, and consideration is being given to the possibility of financing them at least partly by loans.

TABLE 8.2.

Expenditure on Markets — 1970/71 — 1974/75

1970/71	1971/72	1972/73	1973/74	1974/75	Total Rands
—	23	23	23	23	92

Business Extension Service. Government will strengthen its Business Extension Service to help the small trader. This will give assistance and advice on such matters as book-keeping, stock control and other elements in efficient management. Technical assistance will be required to fill any additional posts.

Joint Purchasing Organization. As is pointed out above, Basotho traders have been in a weak competitive position in terms of access to supplies. Co-operative Bulk Buying Syndicates have been formed in Maseru and Leribe, and Government is providing technical assistance.

The implementation of other projects in the plan will also help the development of this sector. In particular, the proposed Development Bank will improve the Basotho trader's access to credit. The proposed expansion of mathematics teaching in the schools and the provision of business courses at an enlarged L.A.T.C. will help to improve efficiency.

Capital Cost of the Programme

Proposed capital expenditure on the commercial sector is estimated as follows:

TABLE 8.3

Commerce: Capital Expenditure 1970/71 — 1974/75

R'000

	1970/71	1971/72	1972/73	1973/74	1974/75	Total
Markets	—	23	23	23	23	92
Shopping Centre	—	119	53	—	—	172
Total	—	142	76	23	23	264

No additional costs will fall on the budget.

9. TOURISM

9.1. Lesotho offers many and varied tourist attractions. Its main attraction is of course the spectacular mountain scenery, which is snow-capped during the winter. The mountains of Lesotho are the highest in the entire sub-region (Thabana-Ntlenyane 11,425 feet). With picturesque valleys in between and the human settlements offer magnificent panoramas and beautiful landscapes. The historical mountain-top strongholds, the churches and buildings of the religious missions, the Semonkong Falls, numerous and well preserved bushman rock paintings, dinosaur foot prints and fossilised plants, trout fishing and pony riding are additional tourist attractions. Above all, the pleasant climate and the friendly attitude of the people make Lesotho an ideal place for recreation and rest.

Despite its unique tourist features Lesotho was, until recently, unknown to the Southern African tourist traffic. Tourist arrivals over the last ten years averaged at an annual 4,000 persons. Inadequate tourist infrastructure and lack of systematic promotional activities to build up the country's tourist image were the main reasons for this stagnation.

The situation, however, is now changing rapidly, after the construction of the luxury hotel Holiday Inn in Maseru, which opened in July 1970. As a result, the Lesotho's bed/night capacity was doubled and an influx of an additional 15 to 20 thousand tourists are expected during 1970/71. This increase in tourist arrivals will have a considerable impact on the demand for services and handicraft products, and will therefore stimulate the private sector.

9.2. Tourist development is closely related to the overall development of the country and particularly to the improvement and expansion of the road system. It is therefore expected that the achievement of the plan objectives will have considerable impact on tourism. At the same time, vigorous efforts will be made for a direct development of tourism during the plan period. At present, however, it is not easy to formulate a comprehensive tourist development programme, because of the country's lack of experience and the uncertainty about the nature of demand for tourist services.

The following set of objectives form a tentative basis for the Government's tourist policy.

- (a) To improve the existing hotels in the country;
- (b) to build a number of clusters of Basotho type huts, at selected tourist spots;
- (c) to promote private initiative for tourist development;
- (d) to launch an efficient publicity programme;
- (e) to strengthen the Department of Tourism in order to become an effective organ for tourist promotion.

9.3. The construction of clusters of comparatively cheap Basotho-type rondavels, at selected places in the mountain region, is considered a method of development which is well suited to the climatic conditions of the country. These rondavels, if well designed, decorated and equipped with an acceptable minimum of facilities, would become a tourist attraction themselves. Moreover, their comparatively low cost would be safeguard against the uncertainty of low occupancy rates, which might be expected to occur before Lesotho becomes a widely known tourist place in Southern Africa.

Each cluster will be composed of 5 units (or ten rooms) and a small communal block with basic comforts and cooking and cold storage facilities. Modern sanitation, and cold water would be provided. The cost of buildings for each cluster of the above mentioned size is estimated at approximately R8,000. Another R7,000 required for site terracing and improvement and access roads would raise the cost of each cluster at an average of R15,000.

During 1971/72 three such clusters will be constructed experimentally. The first camp will be established at Molimo-Nthuse on the Mountain Road. This site has a perennial supply of spring water and is very close to Makhaleng river where trout may be fished. The second camp will be constructed in the valley of the Makhaleng river, at the confluence with the Likolobeng river above St. Benedict Mission. This site, which is one of the beauty spots of Western Lesotho, is reached via Roma and then up and across the Black Neck Pass. A third camp will be situated northward in the Berea or Leribe District.

The establishment of rondavel camps is expected to be an economically viable undertaking and there should be no difficulty to be financed either exclusively by the Government through LNDC or in co-operation with private interests. To increase their rate of occupancy, the rondavel camps will have to be linked with the hotel system and in particular with the Holiday Inn.

9.4. The prospects for the participation of the private sector in the tourist development are encouraging. LNDC's promotional activities and the incentives granted under the

Industrial Bill will open promising possibilities for the private enterprise. The Government will give its full support to foreign investors, provided that their investment is also beneficial to the tourist development of Lesotho.

9.5. Publicity is an essential prerequisite for tourist promotion in Lesotho, especially at the present embryonic stage of the sector's development. A systematic campaign, mainly directed to the Southern African region, is indispensable to attract the public. The publicity programme will have to be worked out in detail on the basis of the financial means available, and the most suitable media to reach the public. Since tourist advertising is too costly, efforts will be made to secure as much free publicity as possible (invitation of newspaper men, travel agents, heads of information services of automobile and touring clubs etc.)

A tourist advertising programme will be prepared by the Department of Tourism with the assistance of a tourist promotion expert. An initial step has been taken by LNDC, which is now compiling interesting information for the country and a full colour tourist map. This material will be distributed through travel agencies and the network of Holiday Inns.

9.6. If tourism is to be developed to the full in Lesotho, it is essential to have a strong Department of Tourism, which will not be handicapped by lack of funds or manpower.

The principal functions of such a Department would be:

- (a) project identification and preparation;
- (b) long- and short-term planning;
- (c) implementation, following-up and supervision of development projects;
- (d) publicity in the form of
 - I printing and publication of brochures;
 - II advertising in South African and overseas media;
- (e) liaison with the proposed Regional Tourism Co-operation Council in Southern Africa — in the event of Lesotho joining this organisation;
- (f) supervision of the proposed rest camps, which could be one of the functions of the Tourism Field Officer;
- (g) overall administration of national parks.

9.7. The estimated cost of the programme is given in tables 9.1. and 9.2, below. Most of the capital cost could be easily financed by direct private investment or at a loan basis, provided that sound tourist projects are available.

TABLE 9.1
Cost Estimates for Tourist Development 1970/71—1974/75
I. Capital Cost (in R)

	1970/71	1971/72	1972/73	1973/74	1974/75	Total
1. Improvement of existing hotels	—	5,000	5,000	5,000	5,000	20,000
2. Rondavels						
Phase I	—	45,000	—	—	—	45,000
Phase II	—	—	60,000	60,000	60,000	180,000
3. 1 Landrover	—	3,000	—	—	—	3,000
4. Typewriter and Duplicating Machine	—	500	—	—	—	500
Total	—	53,500	65,000	65,000	65,000	248,500

TABLE 9.2

Cost Estimates for Tourist Development 1970/71 — 1974/75

II. Additional Recurrent Expenditure (In R) for the Department of
Tourism

	1970/71	1971/72	1972/73	1973/74	1974/75	Total
1. Personal Emoluments (Director, Assistant Secretary, Tourist Field Officer etc.)	—	14,500	15,000	15,500	16,000	61,000
2. Allowances, Printing and publication, vehicle expenditure etc.		10,000	11,500	13,000	14,900	49,400
Total		24,500	26,500	28,500	30,900	110,400

10. MINING

10.1.1. Diamonds The principal mineral of commercial value in Lesotho is diamonds. A large number of Kimberlite pipes and dykes have been found, although only a few are known to contain diamonds. The main known diamondiferous pipes are as follows:

Name of Pipe	District	Remarks
Letšeng-la-Terai	Mokhotlong	Being prospected by Rio Tinto
Kao	Butha-Buthe	Being worked by 3,000 diggers
Liqhobong	Butha-Buthe	Being worked by 600 diggers
Mothae	Mokhotlong	Being prospected by Lonrho Ltd.
Kolo	Mafeteng	To be prospected by a large company
Sekameng	Mafeteng	" "
Lemphane	Butha-Buthe	Was previously considered too low grade to be economic but requires further investigation.

Diamonds have also been found at Robert in Mokhotlong; Hololo, Sekameng, and Thaba Putsoa in Butha-Buthe; Khoelibanna, Nqechane and Matsoku in Leribe; and Ngope-tšoeu in Maseru. All these sites require further investigation.

The Letšeng-la-Terai diamond pipe is at present being prospected by the Rio Tinto-Zinc Exploration Corporation Limited on behalf of the Lesotho National Development Corporation (L.N.D.C.) who hold the mineral rights. To be certain that a pipe is an economic proposition, a large tonnage of Kimberlite must be treated, and Rio Tinto expect to complete sampling in 1971. It is impossible to say whether a major mine will be established at Letšeng-la-Terai until the sampling project is completed. The Mothae pipe is being prospected by the Lonrho Group on behalf of L.N.D.C. Again prospecting is at too early a stage to say whether or not a mine will be established.

The Kao and Liqhobong pipes were extensively prospected from 1962 to 1964. The conclusion of the survey was that both pipes were too low grade to justify large-scale mining, though the possibility that richer parts of the pipes might be worked on

a small scale was not excluded. Operations were carried out between 1964 and 1967 by the Anglo-American Corporation. All operations ceased in 1967. More recently, however, local diggers have been working these sites with some success; production from these two pipes in 1969 was nearly 29,787 carats valued at R1,173,502. This has thrown doubt on the conclusions of the earlier survey, and it seems likely both these pipes could be mined on a mechanised basis by well capitalised companies, though again a very considerable amount of sampling in depth would be required. Both areas are covered by a mining lease granted to L.N.D.C. Licences to individual diggers take the form of a contract between the digger and L.N.D.C.

Thus, although a number of Kimberlite pipes are known, many of them need further investigation, and it is not possible on the basis of present knowledge to make any kind of estimate of the country's diamond resources or the extent to which these could be mined on a commercial scale.

Table 10.1 shows exports of diamonds by licensed dealers in recent years. It shows that output is subject to considerable variations though there has been a general upward trend, broken by the closure of Anglo-American operations in 1967.

TABLE 10.1

Exports of Diamonds by Licensed Dealers, 1964 — 1969

Period	Quantity (carats)	Value (R'000)	Price (Rands per carat)
1964/65	4,333	219	50.6
1965/66	6,211	587	94.5
1966	12,505	697	55.7
1967	21,737	1,018	46.8
1968	11,913	376	31.5
1969	29,787	1,174	39.4

10.1.2. Coal. Coal deposits have been found in various parts of the country. Of these, the most promising is a 6" seam of good quality bituminous coal which outcrops south of Qhalasi in Mohale's Hoek District. Other thinner seams have been found south of Maseru and south of Leribe. Again, further work needs to be done on the known coal areas so as to establish which are the most promising deposits.

10.1.3. Galena. Samples of galena (lead sulphide) have been found in samples from the Maliba-matso River, but no outcropping source has yet been found.

10.1.4. Quartz crystals and Agate. Small, well-formed crystals are common in Lesotho. Clear crystals should be saleable to the jewellery trade, and there is a similar market for the large, more decorative pieces of agate.

10.1.5. Petroleum. There is little positive evidence for the presence of oil deposits. However, a good deal of oil exploration has been and is being carried out around the borders of Lesotho. At the request of the Lesotho Government, the South African Government offered the services of the Southern Oil Exploration Company (SOEKOR) to advise the Lesotho Government on oil exploration. The oil rights of Lesotho will be transferred into the name of L.N.D.C., which will then negotiate with an oil company to carry out initial reconnaissance and geophysical surveys.

10.2. Programme for the Quinquennium. It is not possible in present circumstances to suggest meaningful targets for the contribution which the mining industry is to make to the economy over the quinquennium. As emphasised in Part I of the Plan, the present quinquennium is in many respects a period of exploration and investigation; in no sector is this more true than in respect of mining. On the other hand, the nature of any contribution which the diamond industry might make is clear. If commercial operations commence at Letšeng-la-Terai, the contribution of the industry to the local economy will be principally through the taxes which it will pay and the profits accruing to any local participants (e.g. L.N.D.C.) Local employment will be only moderate, and is expected to be counted in hundreds rather than thousands. On the other hand, the industry will assist the training of Basotho to fill higher and technical posts; local people will not be confined to unskilled or semi-skilled jobs.

Thus the principal requirement at the present time is further investigation of the country's mineral resources and their economic potential. First priority will be given over the quinquennium to a mineral survey over known kimberlite pipes, and a geochemical and geophysical survey covering the whole country. Geophysical techniques will be of value in work on oil and any radioactive minerals; a geochemical survey will also locate other metalliferous minerals.

The second requirement is the improvement in the efficiency of the existing diamond diggers. This can be done by providing them with better equipment on a loan basis, and also by making available an adequate water supply. At present the diggers have

to carry gravel by head load to the river some distance away. Water at a number of points on the diggings would materially increase production.

10.3. Mineral Survey. There have been a number of surveys of Lesotho's mineral resources in the past, including a reconnaissance geological survey in 1938/39, diamond prospecting between 1955 and 1963, a reconnaissance mineral survey in 1963 and further work by the Overseas Geological Surveys in 1965 and 1966. Doubt has, however, been thrown on the results of some earlier surveys as a result of the successful working of sites which had been dismissed as uneconomic. Moreover, much of the earlier survey work was narrowly concentrated on diamonds, and there is a need to widen the scope to cover other possible minerals. A mineral survey will be carried out over the quinquennium. This survey will be divided into two phases.

The first phase which will be completed during 1970/71 will be a trial period during which trial geochemical and geophysical surveys will be undertaken. In addition a photogeological interpretation of Lesotho will be carried out. It is hoped that this will lead to the identification of tectonic features and thus assist in revealing the controls of kimberlite emplacement. In addition colour photography and aerial infra red airborne imagery will be tested over a 1,000 square mile area. The trial geochemical work will be carried out using the present resources of the Department; the trial geophysical work will be undertaken during 1970/71 by two United Kingdom geophysicists whilst the photogeological interpretation and trial aerial photography will be carried out using personnel and funds supplied by the United Nations Special Fund.

The second phase which is dependent upon the success of the first phase will consist of a full scale geochemical survey, as well as an aerial survey using geophysics and colour and infra red photography.

In addition to the geochemical and geophysical work three field parties will be required to sample more thoroughly selected known kimberlites. These parties will also sample new kimberlites found as a result of the geochemical and geophysical survey. The main elements of the survey will be:

Stream sediment and concentrate sampling. This will be carried out by four teams each working within the watershed of a major river.

Soil traverses. These will be carried out in the light of laboratory results, and if there is any necessary follow-up of suspected extensions of known Kimberline locations.

Geophysical Exploration. Aerial geophysical methods will be used if practicable. Ground traverses over known pipes will also be done to prove extensions.

Exploratory Pitting, Pack Sack Drilling, Diamond Drilling and Kimberlite Sampling. Pitting and drilling will be required to define Kimberlite bodies. Drilling will also be done in some of the more favourable areas for the location of economic coal deposits. Sampling of Kimberlite by excavation and washing the material will also be carried out.

Laboratory Work. This will include the examination of concentrates, spectographic analysis, and the plotting and computation of results.

Training. As part of the survey, two assistant geologists in the Department will receive further training in geochemical and geophysical work. In addition scholarships for training selected persons in order to qualify for a degree in geology are required. The professional staff required for the mineral survey will be supplied by the U.N. Special Fund.

It is hoped that the greater proportion of the costs of this survey will be borne by the U.N. through a Special Fund Project. The cost of the project is shown in Table 10.2. This covers the period 1971/72 to 1973/74. The project will be extended if promising results are obtained.

Other Prospecting. Selected areas of Lesotho will be prospected by reputable mining companies. Prospecting will be done by means of an agreement with L.N.D.C. which will hold the prospecting titles. Details will be subject to negotiation with individual companies.

10.4. Aid to Diggers

Production by the diamond diggers could be increased if they could be supplied with better equipment such as rotary pans and pumps. A Revolving Loan Fund of R6,000 will be established to purchase such equipment for resale to the diggers under hire purchase arrangements. In addition production would be substantially increased if water could be laid on to the diggings to enable the diggers to wash their gravel. The cost of building a small dam on the Kaoana River and leading water by 3" pipe to the diggings is estimated at approximately R25,000. Table 10.3 shows aid to the diggers over the period.

TABLE 10.2
UNDP/SF MINERAL SURVEY

R'000

	1971/72	1972/73	1973/74	Total
Special Fund Allocation				
Experts	51	42	42	135
Equipment	32	6	14	52
Colour and infra-red airborne photography	64	—	—	64
Miscellaneous local operating costs	25	24	24	72
Other	19	12	12	43
Total	<u>193</u>	<u>82</u>	<u>91</u>	<u>366</u>
 Lesotho Government's Counterpart Contribution				
Professional Staff	3	5	5	14
Other staff	20	20	20	60
Equipment and Supplies (including land and buildings)	34	12	14	60
Experimental ground geophysical survey	10	—	—	10
Total	<u>67</u>	<u>38</u>	<u>40</u>	<u>145</u>
 GRAND TOTAL	<u>260</u>	<u>120</u>	<u>131</u>	<u>511</u>

Note: Individual items may not add up exactly to totals because of rounding off.

TABLE 10.3
Aid To Diggers

	R'000					
	1970/71	71/72	72/73	73/74	74/75	Total
Water Supply	—	25	—	—	—	25
Revolving Fund	—	6	—	—	—	6
Total	—	31	—	—	—	31

10.5 Summary

Total expenditure on mineral development over the period to 1973/74 is shown in Table 10.4. Expenditure in the last year of the plan period will depend on the results of the mineral survey.

TABLE 10.4
Mining Development 1971/72 to 1973/74

	R'000			
	1971/72	1972/73	1973/74	Total
Mineral survey	260	120	131	511
Aid to diggers	31	—	—	31
Total	291	120	131	542

11. WATER RESOURCES

11.1. In the past, there has been no attempt at the comprehensive development of the water resources of Lesotho. For some years, however, interest has been shown in the possible exploitation of the water of the Northern Lesotho highlands area (formerly known as the Oxbow Scheme) and preliminary feasibility surveys were carried out. Some hydrological data were also collected.

In 1969 the UNDP Governing Council approved a Special Fund project for a Water Resources Survey in Lesotho. The study was to "investigate the water resources of Lesotho to plan their development for the maximum benefit of Lesotho." It was expected that such development would principally involve export of the waters and the possible generation of power. A general programme of staged construction was foreseen, with a specific first stage project to be selected and prepared to feasibility standards. A plan would also be developed for the area within Lesotho showing how water needs might be met. Consideration would be given to the possible use of water resources to meet the needs of agriculture, municipal and industrial development, and the generation of hydro-power, recreation and other purposes. The final report of the Survey is expected in 1971.

11.2. In September 1970 the Consultants produced an Interim Report which justified the selection of a specific initial project for further detailed study and early construction. The first stage project, whose construction is planned to commence in 1972 and be completed in 1977, involves the construction of a dam on the Malibamatso River near the Kao/Pelaneng region. The dam would be nine miles long and 250 feet deep, and would discharge 150 million gallons per day through a tunnel to one of the tributaries of the Elands River in the Republic to the north of Lesotho. The Consultants concluded that exports of the quantity of water which would be required in the Republic would not prejudice Lesotho's own needs for water resources development.

The expected cost of the first stage project (excluding interest charges) would be as follows:—

TABLE 11.1

Malibamatso River Project Expenditure

Million rands

	1972/73	1973/74	1974/75	1975/77	Total
Dams	—	2.32	4.64	4.64	11.60
Tunnels	—	3.12	3.12	4.16	10.40
Shafts	0.43	0.11	—	—	0.54
Adits	0.24	0.06	—	—	0.30
Roads	3.57	1.53	—	—	5.10
Total	4.24	7.14	7.76	8.80	27.94

The resource cost of the project during the plan period (i.e. up to 1974/75) would thus be some R19 million; if interest charges during the construction period are included, the cost over the period might be of the order of R25 million. The total resource cost of the project is estimated at R28 million, and including interest charges total costs might amount to some R35 million.

The long-term benefit to Lesotho will be the very considerable net revenue (i.e. the difference between the sales value of the water and the cost — mainly interest charges — of producing it) which will accrue to the country. The benefits during the period of construction are estimated to be as follows:

- (a) *Employment* This is expected to increase from 770 in 1972/73 to 1,290 in 1973/74 and a peak of 1,500 in 1975, falling to 580 by the last year of the construction period.
- (b) *Income* Apart from the effect on Government Revenue (see (c)) the main income effect will be the earnings of those employed on the scheme, which are estimated to rise from R400,000 in 1972/73 to a peak of R900,000 in 1974/75, falling to R350,000 in the last year of the construction period.
- (c) *Government Revenue*. The greater part of the resource cost of the project other than labour will consist of imports. This increase in imports will raise Lesotho's share of revenue under the Customs Agreement with Botswana, South Africa and Swaziland. There may be some other indirect benefits to Government revenue.

A decision about the Water Resources Authority which will manage the scheme and future ones will be taken early in 1971.

To plan the next phases of water resource development more information about the hydrological conditions of the country is required. Over the next three years R472,000 will be spent for this purpose as follows:

	Rands	
	1970/71	1971/72
	165,000	161,800
		145,200



12. ECONOMIC INFRASTRUCTURE

In Lesotho over the past decade, and in particular during the past quinquennium, there has been a substantial increase in investment in infrastructure services. Not all of this investment has been well-judged; without much of it, however, future growth would be far more difficult, and undoubtedly some of it has already helped to stimulate development. The Government has decided to be far more selective in further infrastructure investment. Far more attention will be given to the probable returns from such investment in terms of higher output, savings or other benefits. These are difficult to estimate because of the lack of data, but, where statistics are inadequate qualitative methods of evaluation will be used. Already there is some difficulty in making funds available for the maintenance of existing infrastructure services—especially roads. In these circumstances, further investment in infrastructure will be undertaken only where the benefits of doing so are clear.

12.1. ROADS AND TRACKS

12.1.1 The insufficiency and poor quality of Lesotho's road system is undoubtedly a major factor in the country's backwardness. Until the mid-1960's there was only one mile of tarred road in the whole country, and outside the western and southern border areas there were virtually no roads apart from some tracks leading into the mountains. The road system of Southern Africa went round the country to the north or south, rather than across it. The principal reasons for this situation were the lack of funds and the mountainous nature of the country with the consequential high cost of road construction. The situation worked in both directions; while the lack of roads impeded development, the lack of development made it difficult to justify the construction of roads.

Substantial improvements have been made in the system during the past five years, especially in the western part of the country. With aid from the International Development Association (IDA) and the United Kingdom Government, bitumen surfaced or gravel roads now connect all the main towns in the west of the country from Quthing in the south through Mohale's Hoek to Mafeteng and Maseru, and northward to Teyateyaneng, Leribe and Butha-Buthe. Feeder roads have been constructed

into agricultural areas, especially in the Leribe District. Food aid supplied under the World Food Programme and by Catholic Relief Services has been used for the construction of tracks capable of carrying 5 ton trucks in the more mountainous and inaccessible parts of the country. Tracks have also been constructed to connect with the site of the proposed Malibamatso River project and the diamond areas in the north. In all, road construction has accounted for more than a half of all development expenditure since independence.

In spite of this progress, the road system still has serious deficiencies. The principal road runs near the western border of the country, and is tarred from Leribe in the north to the Tsoaing River in the south. There are a number of roads of varying standards into the interior, the most important being that from Masianokeng to Roma and Mantsonyane. The road system is connected at various points to the roads in the Republic. But much of the Mountain Area of the east, where about a quarter of the country's population live and which is the main source of wool, mohair and other livestock products, has virtually no roads. Communications between the mountain area and the western part of the country are very poor. Wool and mohair from these areas have to be sent out by pack animals; cattle are moved on the hoof to neighbouring rail points in the Republic. Supplies for many outlying places are sent in by plane. Areas of agriculture potential, such as the Semongkong region, have no roads. Many of the roads or tracks which have been constructed are in need of improvement. Better access is required to the site of the Malibamatso River Project and to the diamond areas of the north if decisions are taken to undertake substantial investment there.

12.1.2. A transport survey is at present being conducted by the Transport Research Centre of the University of Stellenbosch under technical assistance from the Republic of South Africa. The results of this survey are not yet available. A provisional list of high priority road projects has, however, been drawn up on the basis of the following criteria:—

- (a) The extent to which they will lead to savings by existing transport users. This criterion is of particular importance in the mountain areas where high transport costs reduce the returns to producers and raise the price of commodities to consumers. Thus, whereas a bag of maize might normally cost some R4 in Maseru, it would cost R7 in Mokhotlong. Since the mountain areas are typically importers of basic foodstuffs and virtually all other consumer goods, a reduction in transport costs has an immediate impact on their level of real income. In other areas, too, an improvement in the quality of

existing roads lowers operating costs by reducing wear and tear on vehicles.

- (b) The extent to which they are likely to lead to increased commodity production or other income-producing activities, such as tourism. This is naturally more hypothetical and therefore more difficult to judge. Because of the inadequacy of agricultural production statistics it is not even possible to say exactly what has been the impact on output and incomes of past road construction. Some qualitative judgements can, however, be made. For example, there is evidence to suggest that the extension of the roads from Quthing to Mt. Moorosi had a favourable impact on development in the area. Co-operatives have been formed; a nutrition scheme has got under way, poultry are being produced; and there are other signs of growth. Such effects could be duplicated from other parts of the country. Again, the statistical information for assessing the probable effect of future road development in quantitative terms is not yet available, but the areas of agricultural, tourist and other potential are known, and qualitative judgements can be made concerning those roads which are most likely to stimulate economic growth.
- (c) The extent to which the provision of administrative and other services will be made possible. This again is of special importance in the mountain areas, where the improvement of communications will make possible the introduction of many valuable services. Thus it will be possible to station livestock officers to help with stock and pasture improvement, better grading of products and so on. The provision of security personnel will reduce the incidence of stocktheft and could help to encourage owners to upgrade their flocks. School inspectors could be provided and the present very low standard of many schools in such areas could be raised.
- (d) The extent to which savings could be effected in the recurrent expenditure of the Ministry of Works itself. For example, over a certain level of usage the provision of a bitumen surface leads to savings in annual expenditure on road maintenance which are more than sufficient to justify the additional capital expenditure involved.

In applying the foregoing criteria, preference has been given to projects where the advantages seem likely to accrue quickly over those where the benefits appear more remote. This is an important consideration; in view of the shortage of investment resources, only a low priority will be accorded to schemes which appear to be solely of long-term advantage.

A provisional programme has been drawn up for the quinquennium based on the foregoing considerations. This will be subject to amendment in the light of the Stellenbosch Transportation Study when it is received although some of the projects have already been given preliminary consideration by the Stellenbosch Team. Most of the costings are approximate; apart from the Maseru Industrial Access Road, and the roads from Tsoaing to Mafeteng, Ficksburg Bridge to Mapoteng Junction and from Mohale's Hoek to Semongkong, feasibility studies have not yet been carried out to determine either the standard to which the roads should be constructed or their detailed costs.

12.1.3 The principal roads to be constructed or improved over the 5-year period are as follows:—

- (a) *Maseru Industrial Area Access Road.* The road to the industrial area is heavily used and urgently requires a bitumen surface, not only in order to prevent deterioration and the inconvenience arising from dust in dry weather and mud in wet weather, but also because of difficulties created by dust in industrial processes.
- (b) *Other Roads in Maseru.* This will include the reconstruction of Kingsway (where heavy use and an inadequate foundation are likely to cause rapid deterioration in the near future) and the construction of a Southern Ring Road.
- (c) *Ficksburg Bridge to Mapoteng Junction.* The short link road to Ficksburg in the Republic of South Africa is very heavily used, and it is expected that traffic will rise substantially with the establishment of a new industrial area at Ficksburg Bridge. The improvement of the present road is a matter of some urgency.
- (d) *Bituminous Surfacing — Tsoaing to Mafeteng and Masianokeng to Roma.* These roads are taking an increasing amount of traffic, and their upgrading will lead to substantial savings by road users.
- (e) *Mohale's Hoek to Semongkong.* This will provide access to the Semongkong area, one with both agricultural and tourist potential, and which at present has no road connections at all. The road will be constructed to only a modest standard in the first instance. Part of this road — from Mohale's Hoek to Ribaneng Store — has already been completed.
- (f) *Access Roads to the Malibamatso River Project.* It is hoped that work on this project will start in 1972. The reconstruction of the road from Leribe to Pitseng and Kao will be carried out as part of the project, but it will be necessary to improve the present very inadequate

access tracks so as to enable work to commence. The present route through the 'Moteng Pass to Letšeng-la-Terai and Kao will be improved as a matter of urgency. This work will also be of assistance to the diamond industry.

- (g) *Leribe to Butha-Buthe.* This road is taking a growing amount of traffic, and its improvement can be fully justified on the basis of present traffic volumes.
- (h) *Mafeteng to Mohale's Hoek and Quthing.* This is an improvement and extension of the main road southwards from Mafeteng. It will improve communications in the southern part of the country where they are now very poor.
- (i) *District Road Betterment.* Many feeder roads are in a very bad condition, mainly because very little has been spent on their maintenance but also because of poor design and construction in certain places. Government will devote more resources to maintenance over the next few years (see below) but improvements will also be carried out where these can be justified.

12.1.4 "Food Aid" Tracks

In addition to the construction of roads, a major part of the programme for improved communications consists of the construction of tracks principally in the mountain areas. These tracks, which are designed initially for 4 wheel drive vehicles and will take 5 ton trucks but which will be gradually improved, are to be constructed with Food Aid provided by Catholic Relief Services and will be improved and maintained with Food Aid provided by the World Food Programme. In all it is planned to construct some 800 miles of track under the Food Aid Programme in the period 1970 — 1973. When this programme is completed there will be a total network of some 1500 miles of such track. In the period 1973 — 1975 the emphasis will be on improving the tracks which have been constructed under the earlier programme. The local costs of the tracks range from about R750 — R3000 per mile according to the nature of the terrain. These tracks, at a very modest cost, will not only help to reduce the cost of shifting supplies into the mountain areas; they will also be of direct assistance to the livestock industry, in facilitating the operation of livestock improvement centres and in reducing the cost of transport of wool and mohair. (See 7.2.4)

The tracks will also bring improved administration, health services and the more efficient operation of law and order in the areas which they serve. The development of the tracks will also encourage retail and produce marketing facilities.

The principal tracks included in the programme are as follows:

Mantsonyane to Mashai and Sehlabathebe

This is an extension of the Mountain Road from Maseru providing a trans-Lesotho route. A pilot track of about 106 miles will be completed by mid 1971. Further work needed to bring the track up to the basic minimum standard will be done in 1971/72 and improvement and maintenance will continue thereafter. A connection has already been completed from Sehlabathebe to the Lesotho border at Bushman's Nek. If the necessary works are carried out on the South African side of the border, this will provide an easier route to Natal than the Sani Pass for much of the eastern part of the country.

Kcma-Koma to Mokhotlong

This will provide a 20 mile connection from the trans-Lesotho route described above to the existing road network in Mokhotlong District. It is planned to complete this connecting link in 1970-72.

The two tracks will substantially improve the communications of much of the mountain area of Maseru District and provide through communications to Mokhotlong and to Sehlabathebe.

Mohlanapeng to Matsaile

This will provide a 30 mile communication link from the populated area on the west bank of the upper Orange River. The work will be carried out southwards from the trans-Lesotho route.

Thaba-Tseka to St. Martin's and Tlokoeng

This 20 mile link was started in 1970/71 and will be completed in 1973. It will join the trans-Lesotho route at Thaba-Tseka and connect the eastern portion of Mokhotlong District with that route. There is, however, a major river crossing to contend with over the Semenyane River.

Seaka to Phamong and Nohana

This will provide a 50 mile communication link for the villages in the lower Orange River Valley on the northern bank, in Mohale's Hoek District. Work was initially begun in 1969 but only hand labour is at present being utilised. It is planned to complete the track in 1972/73 and during that year to utilise machinery to bring construction up to a basic minimum standard. There is a possible extension eastwards along the Orange River from Nohana to Nkaus.

Matebeng to Tsoelike

This 30 mile link will connect the administrative centre of Qacha's Nek with its hinterland, and with Mashai. It will pass through a well populated area. It is planned to complete this track by the end of 1972.

Hill Top to Ramatseliso's

Some work has already been done on this 15 miles of track. It is an important internal link, without travel through South Africa, from the administrative centre of Qacha's Nek through Ramatseliso on the Lesotho border, to Sehlabathebe which is the terminus of the trans-Lesotho route and the site of the proposed National Park. It is planned to complete construction in 1971.

Other tracks which are under consideration but which may not necessarily be constructed in the period 1970 — 1973 are as follows:—

Mantsonyane/Thaba-Tseka to Lesobeng in the Maseru District.

Semongkong to Methaleng — a route which could be useful in joining Leribe and Mokhotlong Districts.

Nohana — Ketane — Semongkong. This route would join the districts of Maseru and Mohale's Hoek in the central mountain area but would not be undertaken until a road had been built to Semongkong from the lowland part of Mafeteng District as presently planned.

Qacha's Nek — Via Bloumans Nek to Hill Top. This route would provide a shorter link between the administrative centre of Qacha's Nek and the new route to be completed from Hill Top to Ramatseliso's.

Sehlabathebe to Sani. This could provide an alternative route into Mokhotlong District if it was decided not to use the Sani Pass.

Much of the cost of the programme (including the cost of transport of food) is normally carried on the recurrent budget, although special assistance has been required in 1970 as a result of the drought emergency. The principal item falling on the development budget will be the cost of providing mechanical equipment for the programme. Although track construction is highly labour intensive, some mechanical assistance is essential, especially over rocky terrain. The cost of this mechanical assistance is estimated at R35,000 in 1970/71 and R50,000 per annum in 1971/72 to 1974/75. Additional technical assistance will also be required. In particular, somebody capable of maintaining machinery and equipment in the field will be needed. There will also be a need for fully trained unit supervisors who will normally be men who have been trained or had on the job training with the Ministry of Works.

12.1.5. Organisation

At present, roads are constructed both by the Ministry of Works and by the Food Aid Office. In the early days of the Food Aid Programme, there was some criticism of their road building arrangements; the quality of the tracks was very poor and there was a danger that they would deteriorate rapidly unless large sums were spent on their maintenance. The Ministry of Works has seconded a technical officer to the Food Aid Programme, and there has been a considerable improvement in road planning as a result. Roads have, however, been built without proper provision for the future recurrent costs involved. This is clearly an unsatisfactory situation, and it has therefore been agreed that all future road building under the Food Aid Programme will be subject to the same system of approval as other development projects in the public sector. The Ministry of Works will be responsible for road planning, whichever agency carries out the actual construction of the roads.

12.1.6. Capital cost of the Road Programme

Table 12.1 shows proposed spending on the road programme over the 5-year period as well as that part of the Food Aid track programme, which falls on the development budget. As is pointed out above, this programme is provisional, and will be revised in the light of the Stellenbosch Study when that is received.

TABLE 12.1
Road Development 1970/71 — 1974/75
(R'000)

	1970/71	1971/72	1972/73	1973/74	1974/75	Total
Maseru Industrial Access Road (a)	98	9	8	—	—	115
Other roads —						
Maseru	31	29	160	128	20	368
Caledon River Bridge — Maseru	—	—	—	40	148	188
Ficksburg Bridge — Mapoteng Junction	40	100	—	—	—	140
Bituminous surfacing — Tloaing — Mafeteng	—	180	300	160	—	640
Mohale's Hoek — Semongkong	—	50	50	65	—	165
Access Road — Malibatso River Project	5	275	80	—	—	360
Bituminous surfacing Masianokeng — Roma	16	24	200	—	—	240
Leribe — Butha-Buthe	—	—	250	410	150	810
Mafeteng — Mohales' Hoek	—	—	250	400	400	1,050
Mohale's Hoek — Quthing (b)	—	—	—	200	400	600
Butha-Buthe — Caledonspoort	—	—	—	—	90	90
Mafeteng — Van Rooyen's Gate	—	—	—	340	100	440
Pek — Peka Bridge	—	—	—	—	53	53
Mohale's Hoek/ Quthing — Junction to Makhaleng Road	—	—	—	—	48	48
Mohale's Hoek/ Quthing — Junction to Tele Bridge (b)	—	—	—	—	40	40
District Road Betterment	20	20	20	20	20	100
Township Roads and Drainage	20	50	50	90	90	300
Footbridges — Rural Areas	—	5	5	5	5	20
Vehicles for Road Branch	197	—	—	—	—	197
Radio Equipment	—	—	—	9	—	9
Transport Studies	26	—	—	—	—	26
Preliminary Investigations and feasibility studies	30	45	55	60	60	250
Mechanical Aids for Food Aid Tracks	35	50	50	50	50	235
Metrication of Equipment and Instruments	—	5	5	5	—	15
TOTAL	518	842	1,483	1,982	1,674	6,499

- (a) Including storm water drainage for industrial area
- (b) To be completed in subsequent period.

12.1.7. Recurrent Expenditure

The recurrent expenditure arising from the road and track programme and falling on the budget will depend on the standard to which the roads are constructed. Allowance must also be made for increased maintenance expenditure on existing roads. Existing levels of recurrent expenditure are insufficient to maintain the present road system, and roads which have been improved in the past are rapidly deteriorating. This involves users in higher costs; it has been estimated that the additional cost per vehicle mile of using a road which has not been regravelled for several years over a recently gravelled road is some 8 cents, and that regular maintenance on even moderately used roads is more than justified by savings to road users. It is estimated that maintenance expenditure on existing roads should be increased by sums rising from R90,000 in 1970/71 to R160,000 in 1974/75 if the present system is to be maintained. Thus net additional recurrent expenditure over the quinquennium might be of the following order:—

TABLE 12.2

Additional Recurrent Expenditure on Roads 1970 — 1975 R'000

	1970/71	1971/72	1972/73	1973/74	1974/75
Existing roads	90	105	120	140	160
New roads	—	10	25	40	60
TOTAL	90	115	145	180	220

Maintenance costs will also arise in respect of the tracks being built under the Food Aid Programme. It is expected that these costs will be borne on the programme for the next three years, but after 1973 it is possible that some of them will fall on the recurrent budget. By then, 1,500 miles of such track will have been constructed. The annual maintenance cost (including some improvements) should average R250 per mile during the first four years of a track's life, reducing thereafter to R100 per mile. The total maintenance cost of the system after 1973 will thus be of the order of R250,000 per annum, falling to R150,000 by 1977. It is hoped that this will be covered for an initial period by future food aid programmes.

Thus recurrent expenditure falling on the budget on roads and tracks will increase by at least R222,000 per annum by 1974/75. Since the benefits of improved road maintenance accrue primarily to road users, as much as possible of the additional revenue required will be raised by means of additional road taxes. (See Chapter 16.1).

12.1.8. Training

Training needs for works personnel over the period 1970/71 to 1975/76 are as follows:

Professional Staff

- | | |
|-----------------------|--|
| 11 Civil Engineers | { 6 Roads including structural
2 Urban water supplies, 3 Hydrology. |
| 1 Mechanical Engineer | |
| 2 Architects | |
| 3 Quantity Surveyors | |

Scholarships will be requested to enable suitably qualified candidates to be sent to take degrees in overseas universities.

Technicians

- | | |
|----------------------------------|--|
| 40 Civil Engineering Technicians | { 19 Road. 16 Urban
water supplies, 3 Hydro-
logy 1 Buildings.
1 Rural water supplies |
| 5 Architectural Technicians | |
| 2 Quantity Surveying Technicians | |

For training civil engineering technicians a departmental training school will be established. A Civil Engineer capable of running the course will be requested under Technical Assistance. Part time assistance will also be needed from a Clerk of Works. The course will consist of two 9 month academic sessions separated by 12 months practical survey and engineering work in the field. On completion of the basic training the technicians will be given further practical training in the branch in which they are to work. Persons failing this course may, if suitable, be offered appointments as technical assistants.

Scholarships will be required to enable the Architectural and Quantity Surveying Technicians to be sent overseas to take the Ordinary National Certificate in Building Construction with suitable endorsement subjects. This will only be a temporary meas-

ure until suitable courses are available in Lesotho; overseas training of this type is not adapted to local conditions. On completion of the courses these technicians will also require further practical training. Officers with ONC in Building Construction and leadership ability will, after some years of field experience and on the job training, have the basic requirements to make Clerks of Works.

Both professional and technical staff will be sent on short courses to bring their knowledge up to date on new and specialized aspects of their jobs.

Other training needs will be carried out departmentally on the job. All training in the Mechanical branch can, with the aid of short courses held in the workshops, be undertaken on this basis.

In addition to these requirements, special training will be required for staff for the Food Aid track programme. A request has been made for two Peace Corps special placement volunteers, one with knowledge of plant and machinery and the other with experience in survey and simple field construction works. The two men will give on the job training to unit supervisors, to other field staff, machine operators and to foremen.

Machine operators will generally be drawn from staff trained by the Roads Division of the Ministry of Works. Unit Supervisors will generally have had experience of road construction work with the Roads Division and have had their basic training with that Division. Foremen who are in charge of Food Aid labour will normally be local men trained on the job. Such foremen will also be used to take charge of maintenance of the track after it has been brought up to final standard.

12.2. CIVIL AVIATION

The future of civil aviation in Lesotho must be considered in the context of total transport policy. At present many outlying places — especially in the mountain areas — have no road connections and are served by light aircraft which move both people and supplies. As the road and track system is improved, so it may be expected that some of the supplies now carried by air will be carried by road. The need for internal air services will however, remain, both to serve inaccessible areas where the cost of construction of roads or tracks could not be justified, and for the movement of passengers — especially tourists — who may be unwilling to take the time or undergo the discomfort involved in road travel in some of the mountain areas.

Long-term decisions as to the role air transport is to play in overall transport development must await the receipt of the

Transport Survey. Present objectives are confined to the following:

- (a) Improvements to existing services. These include additional services and facilities at Maseru Airport (including the provision of a hard surface to the runway); improvement of the more important secondary airfields; and continued maintenance of and improvements to other mountain strips.
- (b) Implementation of a plan for basic communication facilities and radio navigation aids, designed to ensure the safety of aircraft operations. This includes:
 - (i) An aeronautical fixed communications network linking Maseru and the more important secondary airfields.
 - (ii) The installation of VHF aeronautical mobile services at the more important secondary airfields.
 - (iii) The progressive addition of such other secondary airstrips to the fixed communications network as can be justified by increased traffic or the need for meteorological coverage.
 - (iv) The installation of short distance radio-navigation aids (non-directional radio beacons.)
- (c) The construction of a new airfield to serve the Malibamatšo River Project.

Expenditure on civil aviation development over the plan period is shown in Table 12.3

TABLE 12.3
Civil Aviation Development

R'000

	1970/71	1971/72	1972/73	1973/74	1974/75	Total
Airfield Improvement	10	15	15	15	15	70
New Airfield for Malibamatšo River Project	—	43	—	—	—	43
Air Navigational Equipment	7	7	7	7	7	35
Bitumising Maseru Runway	—	90	—	—	—	90
TOTAL	17	155	22	22	22	238

No additional net expenditure will fall on the budget.

12.3. ELECTRICITY

Electricity is supplied by the Lesotho Electricity Corporation, a publicly owned body established under legislation. The Corporation operates on commercial lines, and raises its funds from commercial sources. Most of the electricity supplied is purchased in bulk from the Electricity Supply Commission of South Africa (ESCOM), but the Corporation maintains some small generators for supplying areas which it is not economic to supply from South Africa because of the length of transmission line required and the limited size of local demand. Electricity is brought from the Republic to bulk supply points, of which there are now two — one in the north and one in the central area. It is anticipated that one will eventually be provided in the south. Supplies are provided by the Corporation in Maseru, Roma, Mazenod, Morija, Ficksburg Bridge, St. Monica's, Mapoteng, Leribe and Mohale's Hoek. A line is under construction from Mohale's Hoek to Quthing. The provision of supplies for Mafeteng and Butha-Buthe is now under consideration.

The Corporation does not have a specific five-year plan. It will consider demands for electricity wherever they arise over the period to see whether a public supply is economically feasible. Ministries and Departments will inform the Corporation at an early stage of developments in any area which are likely to lead to a demand for electricity. The Corporation estimates its normal capacity for carrying out development work at about R60,000 to R80,000 per annum, and expects that average expenditure over the quinquennium will be of this order. This will be entirely financed from commercial loans. No additional recurrent expenditure will fall on the budget; any projects which may have to be subsidised in their initial stages will be carried by the more viable parts of the system.

12.4. POSTS AND TELECOMMUNICATIONS

Lesotho's posts and telecommunications system is operated as a Department of Government, but it produces an operating surplus sufficient to meet both recurrent costs and loan charges. The organisation is thus commercially viable.

A five-year development programme was drawn up to cover the period 1967/68 to 1971/72; this covers the first two years of the plan period. The plan was later extended to 1974/75. The purposes of the plan are as follows:

- (a) To provide an adequate service to meet current demand.

- (b) To allow for normal expansion, bearing in mind the economies of scale possible in capital equipment provision.
- (c) To build a national telecommunications network which will provide the means to give service to individual development areas as they arise.

The principal projects in the plan are as follows:

- (a) The automisation of nearly all the manual exchanges in the rural areas. This will provide a better and more continuous service than can be provided by manual exchanges
- (b) The installation of an automatic trunk switching exchange at Maseru which will allow the introduction of subscriber trunk dialling within Lesotho and also to other countries in Southern Africa.
- (c) The extension of Maseru Exchange, which it is estimated will be working at full capacity by 1973.
- (d) The establishment of a Radio Call service which will enable a telephone service to be provided by HF radio throughout Lesotho.
- (e) The conversion of the telegraph exchange at Maseru to automatic working.
- (f) The creation of a Northern Lesotho VHF radio link so as to provide services for the Malibamatšo River Project and any diamond industry development in the area, and to provide an extension of the existing communications framework into the interior.
- (g) The improvement of several post offices, including extensions at Maseru and Mokhotlong.

Capital expenditure over the period is estimated at R670,000, including R626,000 on telecommunications and R44,000 on posts. Nearly all the projects are expected to be commercially viable, the principal exception being the Northern Lesotho VHF radio link, where there may be an initial period during which the build-up in usage will be insufficient to meet capital charges, and where an element of grant or soft loan assistance will be required. Aid will also be required for consultancy services. Loans have been secured from the Post Office Savings Bank, Barclay's Bank and the Standard Bank to cover the whole of that portion of the programme which is commercially viable. Table 12.4 shows the programme for the period.

TABLE 12.4

Telecommunications and Posts Development

R'000

	1970/71	1971/72	1972/73	1973/74	1974/75	Total
Telecommunications						
Telephone Exchanges at District centres	93	—	—	—	—	93
Maseru Trunk Exchange	127	26	—	—	—	153
Maseru Exchange Extension	38	68	11	—	—	117
Radio Call Service	—	12	—	—	—	12
Automatic Telegraph Exchange-Maseru	—	—	50	—	—	50
Northern Lesotho VHF Link	—	120	—	—	—	120
Miscellaneous improvements	5	20	20	20	10	75
Consultancy Services	6	—	—	—	—	6
Total Telecommunications	269	246	81	20	10	626
Posts						
Extension-Mokhotlong Post Office	1	4	—	—	—	5
Other Post Offices	—	25	5	2	7	39
Total Posts	1	29	5	2	7	44
Grand Total	270	275	86	22	17	670

Proposals for establishing a Public Corporation for posts and telecommunication have been under detailed study, and a decision is expected shortly. Whether such a corporation is established or not, the programme will involve no additional calls on the recurrent budget.

12.5. PLANT POOL

A Plant Pool will be set up for the better administration, control and utilisation of plant and equipment owned by government. With this end in view, a survey of government's plant holdings was conducted in December 1969 by P.E. Consulting Ltd. financed by the Ministry of Overseas Development. The survey showed that the plant owned by Government is being managed in an improvident manner and is steadily deteriorating. Levels of utilisation are low and a great deal of plant is retained after its economic life.

The principal recommendations of the Survey are:—

1. A Plant Pool should be established with a management which has complete responsibility for the purchase, maintenance, allocation and disposal of plant.
2. The Pool should operate on a trading account with authority to generate and retain funds for plant replacement.
3. Plant which is not utilised or which is beyond economic repair should be sold immediately.
4. An injection of capital is required for the provision of suitable plant replacements and support facilities. A sum of R285,000 is suggested for the first year of operation, including R110,000 for the establishment of adequate maintenance and repair facilities. A further capital sum of the order of R170,000 will be required in the following year.

The Lesotho Government has accepted these recommendations. The processing of the report in detail, the production of building plans, schedules of equipment, systems etc. involves a great deal of work for which no adequate staff at present exists. A Transport Manager will be recruited to release the Mechanical Engineer for the planning work involved in implementation. As a total investment of the order of R1,070,000 (including the value of existing equipment) is involved, adequate accounting staff will also be provided. Progress in implementation is greatly dependent upon the provision and concentration of staff.

It is, however, planned that work will commence in 1971/72. Planned expenditure in 1971/72 is R100,000 principally on buildings, workshops and equipment. R355,000 will be spent in 1972/73. Since the establishment of a plant pool should lead to a more efficient use of Government plant, and will take over the Government Garage, involving a pooling of management, staff and facilities, it will lead to savings on the recurrent budget.

12.6. SUMMARY

Proposed capital expenditure on economic infrastructure development is estimated as follows:

TABLE 12.5
Economic Infrastructure Development

R'000

	1970/71	1971/72	1972/73	1973/74	1974/75	Total
Roads	518	842	1,483	1,982	1,674	6,499
Civil Aviation	17	155	22	22	22	238
Electricity	70	70	70	70	70	350
Posts and Telecommunications	270	275	86	22	17	630
Plant Pool	—	100	355	—	—	455
Total	875	1,442	2,016	2,096	1,782	8,212

Additional recurrent expenditure will be required on roads. This is as follows:

TABLE 12.6
Additional Recurrent Expenditure

R'000

	1970/71	1971/72	1972/73	1973/74	1974/75
Existing Roads	90	105	120	140	160
New Roads	—	10	25	40	60
Food Aid Tracks	—	—	—	250(a)	225(a)
Total	90	115	145	430	445

(a) To be covered by Food Aid

13. SOCIAL INFRASTRUCTURE

13.1. EDUCATION AND TRAINING

13.1.1. Introduction

Historically formal education in Lesotho is a result of the undertaking of christian missions which came into the country as early as 1833. They pioneered under difficult circumstances to build boarding and non-boarding schools that were based on a variety of divergent educational philosophies. Their valuable efforts needed co-ordination and central direction, but the syllabuses they followed were foreign, and this left little choice for the adaptation to local conditions. The pre-independence governments played a part in the provision of schools, but the vital role of education as an agent of social and economic development of the country could not be fulfilled.

Thus, in 1966 the first independent Government of Lesotho inherited a school system which was not only mission-inspired but also unrelated to the development of skills and aptitudes required to achieve rapid economic development and to improve the standard of living of the majority of the people.

Education and training for the rapid economic and social development of the country are the focal points of the present Five Year Development Plan. The Government, which has ultimate responsibility for the education of the people, will take all necessary measures to co-ordinate and properly plan the development of the educational system so as to ensure the availability of the kind of manpower required for the economic advancement of the country.

13.1.2. The Present Educational System

The present educational system has many weaknesses. It is expensive and inefficient in terms of the money already invested in education and the number of pupils actually reaching and completing the final year of the secondary course. Only 16% of pupils who start their primary education have been able to complete it, and only 10% have been able to pass the final primary examination. The content of education is also of the traditional academic type and bears little relation to the development needs of the country. The teaching of science and mathematics is very weak. Furthermore, there has been little overall planning of the educational system so as to fit it to the country's needs for development.

13.1.3. Policies and Objectives

The main policy objectives of the National Plan in the field of Education could be summarized as follows:

- (i) To gear the development of the education system to the requirements of manpower for economic development by lessening the academic bias of the system, and putting more emphasis on the teaching of science and mathematics. This involves expansion of secondary as compared with primary education. At University it implies relating teaching to the country's needs for trained high level manpower.
- (ii) To improve the efficiency of the educational system in terms of the numbers and the quality of its output and in relation to the money spend on it. This requires improvement in the training of teachers and provision of basic equipment for schools.
- (iii) To use scholarships as a means of channeling individuals into those fields of training needed for economic development.
- (iv) Through appropriate educational planning to strengthen Government control and supervision over all educational activities.

The sections that follow relate general policy considerations to the problems in the individual sectors of the system.

13.1.4. Primary Education

According to the 1968 statistics the teacher/pupil ratio in primary schools was 1:52. This ratio is too high and the government plans to reduce it considerably by training a large number of teachers.

Almost all schools are under mission control and management, while they receive grants from government, based on average attendance figures. This system of grant allocation has just been introduced; it replaces a system whereby grants were distributed in proportion to each mission's educational commitment, as calculated more than twenty years ago. The new arrangement thus spreads the grants-in-aid more equitably. In the next five years the plan is to redeploy funds in such a way as to give greater support to the more productive levels of education. A formula will also be introduced to take account of productivity. At the same time a uniform system of fees will be brought into use, to provide the funds necessary to improve some of the more unsatisfactory conditions in primary schools.

Primary education also suffers from a high rate of wastage, irregular attendance, a high proportion of children above school age, a lack of teaching equipment and a high proportion of poorly trained teachers. A major weakness in the system of primary education is the multiplicity of small and uneconomical schools, which are a tax on already limited manpower and financial resources. In these circumstances, the immediate requirement is not to increase the number of schools but to improve the efficiency of the existing schools by increasing the number of children completing the courses.

Some of the difficulties involved, such as the use of children as herd-boys instead of their attending school, cannot be removed within the educational system itself. They can be solved only within the context of a progressive farming system, which is the concern of other parts of the plan.

To reduce the high wastage rate and to improve the age distribution in primary schools the Government introduced an "automatic promotion" system in 1967. This system requires regular attendance from the child and good record-keeping by the teacher on the performance of each child. The idea is as yet accepted with a certain amount of reluctance, but government will take all possible measures to implement automatic promotion at all levels.

As pointed out above, many primary schools lack basic equipment such as desks, blackboards and cupboards. This greatly hampers the ability of children to learn and contributes to the inefficiency of the system. Government plans to undertake over the next five years a programme of providing such equipment and other teaching aids. The programme will cost a total of R65,000 during the plan period. All the furniture materials will be produced locally.

Revision of the curriculum to suit the needs of the country is vital and will be pursued through the establishment of a Curriculum Development Centre at the University. Preliminary discussions have already taken place between the Government and some external aid agencies. The work will be carried out in three phases:

- (1) Actual preparation of the new curriculum;
- (2) preparation of revised textbooks to meet the new curriculum and their distribution to schools; and
- (3) the retraining of existing teachers scattered throughout the country.

In-service training courses have been going on since 1966 and they have been closely linked with new syllabuses. However graduates from these courses often met with opposition to new

methods on the part of senior and head teachers. This led the Ministry to organize special courses for head teachers. Two such courses have already been held with UNICEF assistance, and the target is to retrain all head teachers (about 1300) within the five year period. Follow-up courses are also being planned for assistant teachers, to be carried out at a number of centres throughout the country. A number of experimental schools are also to be used as teaching centres for week-end and vocational courses. Thus a corps of competent teachers is being built up to supplement the inadequate inspectorate staff. In this connexion the inspectorate establishment has been increased by three for the coming year, but further increases will be necessary in order to bring about the central guidance and co-ordination which is essential.

Mention must be made of the English Medium Preparatory School in Maseru, which has up to the present catered mainly for the children of expatriate staff. While it retains its multiracial character, it is proposed, within the period of the Plan, to expand this school to take in more children, and to develop it so that it may offer a full primary and secondary course.

13.1.5. Teacher Training

Improvement in the quality of primary and secondary education can only be achieved with properly qualified staff, and therefore every effort will be made to tackle the problem of poorly equipped teachers. There are at present seven teacher training colleges which are owned and operated by the missions with government assistance towards the payment of staff salaries. The system is in many ways inefficient, not only because the colleges are small (average enrolment 105), but also because training is done at three different levels, in one case all three levels existing in the same institution. The Lesotho Primary Teachers' course which admits students who have finished the primary school course (now 7 years), has an enrolment this year of 521, and is of three years' duration; the Primary Higher course, which is a two-year course after Junior Certificate, has currently 167 students; there is also a course of two years post-matriculation leading to the Advanced Teachers' Certificate. Only one of the colleges offers the advanced course, the intake is in alternate years, and the number of students is 15, in their second year. Thus the system at present produces some 200-220 primary school teachers annually, and a small number for junior secondary schools every alternate year. Teachers for higher secondary work are recruited from the U.B.L.S. or abroad.

It is planned to establish in or near Maseru a National Teacher Training college, capable of accomodating 1000 students, 800 of whom would be boarders. Courses would be at two levels:

- (a) at post-matriculation level for the training of junior secondary school teachers, and
- (b) at post-J.C. level for the training of primary school teachers. The latter course would be so arranged as to allow students a certain amount of specialisation in the choice of lower or higher primary teaching.

Capital costs for the building of such a college are estimated at R1,475,000 including boarding, accomodation and 20 staff houses. It is hoped that, with foreign assistance, this project may be started in 1971. The gross recurrent cost of such a college may be estimated at R375,000 annually, but this figure would be considerably reduced during the period of the plan by the following factors:

- (a) It is hoped that foreign assistance will be forthcoming for the provision of expert staff.
- (b) The present grants-in-aid to teacher training colleges (junior R80,000) would be diverted to the National College, as the former were phased out.
- (c) An income of some R65,000 is envisaged from fees.

It is hoped that the establishment of this college will have a far-reaching effect on future quality. In the meantime unrelenting efforts are being made to improve the present corps of teachers. Measures for in-service training at the primary level have been mentioned in the previous paragraph. A plan is also under consideration to produce "Leaders" both for the teaching profession and for the inspectorate. These specially selected teachers will attend vacation courses at the university over a two-year period. In order to provide more mathematics and science teachers in the secondary schools it is planned to give one-year intensive courses at the U.B.L.S. both to practicing teachers and to suitable candidate teachers who have the necessary qualifications in these subjects at matriculation level.

None of these measures can solve the immediate problem of the shortage of science and mathematics graduate teachers in secondary schools. Therefore it will be necessary to seek foreign assistance in the recruitment of suitably qualified graduates. For this purpose it is planned to increase the Ministry of Education establishment to accomodate up to 16 such teachers, who will be appointed to government service and seconded to the schools. For the future, government intends, by a system of bonding, to secure the services of teachers in these priority fields.

13.1.6. Post-Primary Education: Secondary.

There are at present (1970) some 6000 pupils in secondary schools. In accordance with the high priority given by government to secondary education, it is planned to increase the number of places both at junior secondary and at high school level. The expansion programme for 1971 is planned to provide secondary places for 20% of primary school graduates. Within the system there is a bottle neck between junior secondary and high schools, the promotion rate being at present about 40%. Wastage in the secondary schools has fallen considerably but still ranges from 12% to 25%. A major factor accounting for drop-out is the heavy cost of secondary education. The average tuition and boarding cost per child per annum is now R80, exclusive of clothing, pocket money and other incidental expenses.

There is a great shortage of secondary school graduates with the qualifications needed to go on to technical or higher education in scientific subjects. Thus in 1968, there were only 190 school certificate passes to meet all the country's needs for entrants into government employment or the private sector. Of these 190 only 20 were qualified to enter the University. The situation was worse in science where no pupil passed physics and only one passed chemistry. In mathematics only 16 pupils qualified to enter university. The situation was not much better in 1969. This services to highlight the problem which the country will face in the training of people in those fields where science and mathematics are prerequisites.

The curricula of secondary schools have tended to be narrowly academic. But strong emphasis has recently been laid on the teaching of science and mathematics, and these two subjects are dealt with separately below. In the past practical agriculture and home economics have appeared in the syllabus, but have been hardly taught because academic subjects, carrying the hope of higher education have been preferred. There has also been a lack of suitably qualified teachers. It is planned in the next five years to train teachers to handle these important subjects. However, until larger schools which can offer a variety of subjects are developed, the intention is to introduce a compulsory core curriculum consisting of the languages, mathematics and science. Such a curriculum will ensure that every pupil studies the basic subjects necessary for higher education. At the same time he will have sufficient practical subjects to prepare him for a less academic future.

To improve the selection procedure for entrance into secondary schools Lesotho joined the governments of Malawi, Botswana and Swaziland in the establishment of a Regional Testing Resource and Training Centre. The Centre headquarters

are in Malawi while the Branch headquarters are in Botswana. The Botswana branch supervises work in the three countries, namely Botswana, Swaziland and Lesotho. The objective of this project is to create a modern regional testing programme and to train local people in carrying it out.

Estimates of secondary school output over the 5 year period may be given as follow:—

	1971	1972	1973	1974	1975
Junior Certificate	560	770	765	695	1130
C.O.S.C.	305	395	430	550	610

13.1.7. Post-Primary Education: Vocational

Reference has been made above to the need for practical subjects in the curriculum to cater for those whose future does not lie in academic studies. But the fact is that the majority of Basotho children will not enter a secondary school at all, and any plan which does not take account of this fact cannot be said to serve the nation's needs. In an endeavour to tackle this problem the government intends to support the establishment of post-primary vocational schools which will give practical courses in crop production, poultry farming, animal husbandry, crafts work and other subjects with a rural bias related to the locality in which the school is situated. The Ministry of Agriculture is, in conjunction with Ministry of Education, organizing courses, beginning in early 1971, to reorient teachers to take such classes, and it is hoped that UNICEF will give assistance in the matter of equipment. The aims are strictly to give a form of training which will be inexpensive and practical, and which will encourage the young to stay and make their living in their own land.

There are at present two schools offering Home Economics at post-primary level; these schools will be developed to enable them to enter candidates for this subject in the Junior Certificate examination, and efforts will be made to encourage other schools of the same type. In general, more attention will be given to handwork in the primary schools, with the object of making the secondary curriculum more practical.

13.1.8. Post-Primary Education: Trade and Technician Training

Lesotho has two schools which offer trade training, the Lerotholi Artisan Training Centre, a government institution situated in Maseru, and Leloaleng Trade School a mission-owned and government subsidised school situated at Quthing. The enrolments are 85 (1970/71 enrolment) at the L.A.T.C. and 68 at Leloaleng, and their combined output is 45 to 50 tradesmen a

year. There exist no arrangements at all for the training of technicians, and the trade training is scarcely adequate for the needs of the country. These needs begin to be acutely felt now that Lesotho has embarked on a programme of development. For example, for the construction of the Holiday Inn, the international hotel which has recently been completed in Maseru, all the technicians and practically all the artisans were brought in from outside. Again, for such development schemes as the Malibamatso River Dam project both technicians and artisans will be required but the supply is deficient and no arrangements exist as yet for the necessary training.

So it is against this background that the development and enlargement of the L.A.T.C. takes a high priority in the national development plan. The government intends to improve and expand trade training and to add a technical/commercial wing (the term "polytechnic" has been used), which may become an affiliated institution of the U.B.L.S. Both forms of training will be carried on at the present L.A.T.C. site, so that they may be mutually complementary. At this stage, however, it is convenient to consider the two parts of the future institute separately.

Trade training will be made more efficient in the following ways:

- (a) Intake will be in alternate years for all courses in Bricklaying and Carpentry, thus raising the instructor-trainee ratio which at present is only 1 : 6.
- (b) Full time courses at the school will be reduced from 3 to 2 years, but to compensate this apprenticeship arrangements will be made with employing firms for a further one or two years' training, which will better fit the trainees for employment. It will be a matter of arrangement with individual firms whether this latter form of training should be part-time release or "Sandwich" courses.
- (c) Additional courses in Plumbing/Sheetmetal work and Panel Beating, at present non-existent, will be introduced.

An enrolment of 125 in the various trades is aimed at. Output would be alternately 60 and 65 artisans each year.

It is estimated that the additional equipment required for all forms of trade training will be in the region of R41,000; R3,000 will be needed for the adaptation of an existing block for use as a plumbing/sheetmetal work workshop; and recurrent expenditure, to deal with both apprenticeship training and additional courses, will be R9,750 p.a.

It is proposed to add a new wing which will cater for technician, including business and commercial, training. Up to 130

Junior Certificate holders would be admitted annually to "Pre-polytechnic" courses (70 for technical and 60 for commercial courses). It is calculated that these courses would produce 50 technical and 45 commercial students annually, for entry to the two-year polytechnic courses proper.

The cost of the construction of the polytechnic wing and the recurrent cost of running it have been estimated by the University Academic Planners at R798,280 and R157,000 per annum respectively.

13.1.9. Science and Mathematics

As mentioned above, one of the greatest weaknesses in the system has been in science and mathematics. Measures are now in hand to develop these two subjects so that they may more adequately meet the nation's requirements.

At the primary level the following measures have been, or will be taken:

- (a) A modern mathematics syllabus was introduced in 1968 and this syllabus has now been revised and metricated, and will be introduced to all primary schools from January 1971. The science curriculum will also be revised.
- (b) Mathematics textbooks have been produced by Longmans up to Standard V level, and supplementary guide notes have been issued.
- (c) Examination papers will be modified to reflect the teaching of the new curricula. Specimen mathematics papers have already been sent out.

Measures are in hand to increase the importance of these subjects also in secondary schools. It will no longer be possible as in the past, to avoid taking mathematics in the Junior Certificate examination. However the pass mark in this subject is still the lowest, and will have to be raised.

For the teaching of mathematics the School Mathematics Projects has been adopted, and the first group of pupils will take the alternative modern mathematics paper in the J.C. examination in 1971. Three S.M.P. courses have already been organized, with the participation of S.M.P. authors, and these courses will be continued each year. A gift of S.M.P. books costing nearly R60,000 has been promised and is expected to arrive early in 1971. Additional modern mathematics has been introduced as a subject at J.C. level, and it is planned as an 'O' level subject.

The present secondary science course gives insufficient time for the study of biology, chemistry and physics. It is therefore proposed to change the course to enable the secondary schools to devote a minimum of three years to these subjects leading to matriculation. This measure is calculated to produce more candidates for the science subjects at university. Every effort will also be made to encourage science graduates to enter the School of Education to train as teachers.

All these measures are being to a large extent consolidated in the new Mathematics/Science Centre in Maseru. This project, for which R30,000 has been allocated, is already far advanced, and is expected to be completed in 1971. It will fill the important role of providing a library in these subjects, a workshop for the production of science-mathematics teaching equipment and a centre for mathematics and science teachers generally. It is planned to open other such centres in the near future.

13.1.10. The University of Botswana, Lesotho and Swaziland (UBLS)

In the field of higher education the Government will maintain and broaden the regional nature of the University of Botswana, Lesotho and Swaziland which is jointly owned by the three countries. Its primary function, however, should be the development of middle level manpower within a clearly defined system of higher education for the three countries concerned. The government in consultation with the governments of Botswana and Swaziland will seek agreement on guidelines for the future development and orientation of the University through the University Grants Committee which is to be established. As a first step a detailed plan of the University covering the next five years has already been prepared by a team of foreign experts.

The adjustment of the University to meet the manpower and training needs of the three countries depends to some extent on the degree of localization of its academic and administrative staff. Without substantial localization of the university there will always be a high turnover in the academic personnel. This might militate against the adoption of courses of study that are geared to the development needs of the three countries. In the long run localization may prove to be one way of reducing high costs per student at the university. The University has a clear policy of training for localization purposes; as long ago as 1965 short-term contracts for expatriate staff were introduced in order to facilitate the appointment of local staff when opportunity offered and there were qualified local candidates. In addition, the Senate of the University has machinery for the careful selection of able

graduates for further training overseas with a view to their returning as candidates for such posts as may at the time be available to come on to the University staff. In addition, the University finances training posts for one year with a view to further training overseas in other African universities. For several years it has also been the policy of the University to give preference to local candidates for appointment provided they are adequately qualified and other things being equal. Thirdly, the University has already adopted the policy where appropriate of employing on a part-time basis local people who are qualified and are working with the Governments. The latter will ensure that the theoretical instruction of the university is tempered with the practical experience of the difficulties that hamper the economic and social development of the three countries. This may be a relatively cheap method of reinforcing existing courses and of diversifying.

One of the most urgent manpower needs for Lesotho at the University level is in the field of teacher training. Of the 257 secondary school teachers in 1970 56 are Basotho graduates, but only 13 are science graduates, of whom only 7 are professionally trained; only one of this number is a mathematics graduate. In 1970 the number of Lesotho students studying on degree courses was:

BA (CCE)	25
BA	8
B.Sc	44
B Sc (Ed)	3
BA (Econ.) & Law	65

There were in addition 3 students following the Certificate in Education (Secondary) course, and one doing the Post-graduate Certificate in Education course.

A project for the improvement of science and mathematics teaching, under the auspices of UNESCO/UNDP, was started in 1970, and is now under way. As mentioned earlier a one-year crash course for mathematics and science teaching is also planned for 1971 and after.

In conclusion brief mention must be made of the report of the Academic Planners. This report deals with the development of the University over the next five years, and in particular with the devolution of Part I studies (the first two years of the degree course) in the three countries.

13.1.11 Educational Planning

One of the weaknesses in the educational field has been the difficulty of formulating and implementing a national plan for educational development. There has been a shortage of staff

considerable support provided by government. The educational needed to draw up such a plan. The Missions have tended to operate independently in their own fields, in spite of the very system has therefore developed in an unco-ordinated way, without regard to the needs of the country as a whole.

In view of the need to improve the efficiency with which resources devoted to education are used, continuing machinery is required for educational co-ordination and planning. The following measures will be taken:—

- (a) The planning side of the Ministry of Education will be strengthened. As is pointed out in Chapter 6 programming units are being established in all Ministries, including the Ministry of Education. A senior Education Officer has been appointed counterpart to the UNESCO Planning Expert, and is at present on a fellowship course at the International Institute of Educational Planning in Paris.
- (b) Regular consultations will take place between Government and the Missions on educational policy, but Government will deploy its financial resources in such a way as to implement national education programme.
- (c) Preparation of "Career Guide Books for Secondary Students" by the Ministry of Education and Central Planning and Development Office. The aim of this book will be to provide occupational labour market information so that students could make rational career choices within the frame-work of national policy.

13.1.12 Museum, Archives and Library

Plans have been prepared for the building of a National Museum in Maseru, and R20,000 a joint gift of the commercial banks, is available for this project. The architect is engaged in recosting, and it is hoped that work will begin on the construction in the near future. Funds will be sufficient for the first two exhibition halls, but another R50,000 will be required to build the central hall, and to complete the project.

The nation's archives are at present poorly housed, and it is planned to erect a new archives building, a project which will cost an estimated R60,000.

A National Library is also to be included in the plan, at an estimated cost of R70,000 for the building, R20,000 for books and R45,000 for other recurrent costs during the period of the Plan.

13.1.13 Miscellaneous

The following are amongst the other educational activities which, for reasons of space, cannot be more fully treated.

(a) *L.I.F.E.*

Lesotho Institute for Further Education has got no Headquarters of its own, and lacks the facilities which its enrolment and public support justify. It is intended that a permanent headquarters should be found for it in the new technical college. A correspondence study section will be started, and expert assistance in this field will be requested from UNESCO.

(b) *School Broadcasting*

It is hoped to introduce school broadcasting during the period of the Plan. Plans are under way to send an inspector of schools abroad for training in educational broadcasting so that he may set up and operate a studio in conjunction with the Lesotho National Broadcasting Corporation.

(c) *National Commission for UNESCO.*

A constitution has been drawn up for a National Commission for UNESCO, and it will be established in the very near future. Its function will be to advise the government on matters relating to UNESCO, and to promote an understanding of its general objectives on the part of the people.

(d) *Ethnological and Historical Research*

The government will encourage research on the country's ethnological origins and history, which will provide an adequate basis for teaching these subjects in the schools. An amount of R10,000 will be granted over the five year period for this purpose. UNESCO will also be approached for supplementary assistance. The Ministry of Education in collaboration with C.P.D.O. will draw up an appropriate research programme.

(e) *Pre-school Education*

Pre-school education has been attempted at one or two of the mission stations, but government has not so far been able to finance anything of this kind. It is hoped to start a pilot nursery school in Maseru with external assistance.

(f) *Education of the Handicapped*

Education of the handicapped is another vitally important field in which little has yet been done. But a start has been made, with the assistance of the R.C.S.B., and a school for the blind is nearing completion in Maseru. Efforts will be made to develop other schools for the education of the handicapped.

13.1.15 Financial Summary

The capital and government recurrent expenditure is shown in tables 13.1 and 13.2.

TABLE 13.1
Summary of Capital Expenditure on Education 1970/71 — 1974/75

	1970/71	1971/72	1972/73	1973/74	1974/75	Total
1. Furniture Equipment and Teaching Aids for Primary Schools	—	20,000	15,000	15,000	15,000	65,000
2. Vocational Education, Buildings and equipment	—	10,000	10,000	10,000	10,000	40,000
3. National Teacher Training College	—	450,000	500,000	525,000	—	1,475,000
4. Expansion and Improvement of secondary school Facilities	142,750	130,000	130,000	130,000	130,000	662,750
5. Science Laboratories	—	36,000	24,000	48,000	—	108,000
6. Science Equipment	5,000	5,000	5,000	5,000	5,000	25,000
7. Completion and Equipment, including books of Science/Maths Centre, Maseru	7,500	7,500	7,500	7,500	—	30,000
8. School of Education, UBLS	—	—	380,000	—	—	380,000
9. National Technical Education Institute	41,000	3,000	400,000	400,000	—	844,000
10. Archives	—	—	—	—	60,000	60,000
11. Museum	—	20,000	50,000	—	—	70,000
12. Library	—	—	—	45,000	45,000	90,000
13. Sports & Recreation	—	25,000	35,000	—	—	60,000
14. Water supplies for Secondary Schools	35,000	70,000	—	—	—	105,000
15. Improvement of sewerage systems, secondary schools	—	—	25,000	25,000	—	50,000
TOTAL	231,250	776,500	1,581,500	1,210,500	265,000	4,064,750

TABLE 13.2

Additional Recurrent Cost 1970/71 to 1974/75.

	1970/71	1971/72	1972/73	1973/74	1974/75	Total
1. National Teacher Training College			130,000	180,000	230,000	540,000
2. Secondary School Teachers, including specialists in science and maths.	20,000	105,600	148,100	177,900	207,200	658,800
3. Counterpart for Expert at Maths/Science Centre			3,000	3,150	3,300	9,450
4. Maths/Science Centre, Running Costs			2,000	2,000	2,000	6,000
7. Additional Bursaries at UBLS		13,000	23,000	23,000	23,000	82,000
8. Technical Institute		9,800	100,000	120,000	157,000	386,800
9. Museum, Archives, Library: Running Costs			10,000	20,000	30,000	60,000
TOTAL	20,000	128,400	6,100	526,050	652,500	1,743,050

13.2. HEALTH

13.2.1. Present Situation

The climate of Lesotho is healthy and although there are sharp extremes both of heat and cold, humidity is low and tropical diseases are few and uncommon. The principal health problems of Lesotho are malnutrition, tuberculosis, typhoid and gastro-enteritis — the effects of low incomes, poor housing, inadequate water supplies and sanitary facilities, and insufficient health education. Improving the health of the people of Lesotho is therefore not solely a matter of curative medicine; it involves improving standards of living over a wide range. It means raising family incomes, improving housing conditions, water supplies and sanitary facilities, and providing health education in the widest sense. Viewed in this way, much of the development outlined in the Plan is relevant to the improvement of the people's health. The increase in income following from agricultural, industrial and commercial expansion, the improvement of water supplies and sewerage, the expansion of education and improvements in housing should all be of benefit to the nation's health.

The present system of health services in Lesotho is characterized by an acute shortage of medical and other supporting personnel, insufficiency of drug supplies, and an imbalance between curative and preventive aspects. Steps have been taken to re-organize the department in order to ensure maximum efficacy.

13.2.2. Doctors

At present Lesotho has thirty four doctors, of whom eight are in mission hospitals, nine in private practice and seventeen in Government service — thirteen general practitioners and four specialists in anaesthetics, radiology, surgery and psychiatry, respectively. Most of these doctors are expatriates.

The Government's objective with respect to medical staff is to provide at least fifteen additional doctors at the general practitioner level and six specialists — in medicine (with special knowledge of paediatrics), obstetrics and gynaecology, orthopaedics, pathology, preventive medicine and psychiatry, respectively.

Nineteen general duty medical officers will be posted to the eight district hospitals in order to provide a minimum of two doctors per district, with the exception of the districts of Leribe, Mafeteng and Mophale's Hoek, where three doctors will be provided for each district. All the doctors will be based at the district hospitals and will, as part of their duties, visit the clinics and be

responsible for both the curative and preventive work. Nine of the general duty doctors will be allocated to the Queen Elizabeth II Hospital, which number will include the Flying Doctor. At present arrangements are in force for specialists from various centres in South Africa to visit Lesotho on a voluntary basis and work at Queen Elizabeth II Hospital on weekends. The Government intends to replace this service by more permanent arrangements as soon as possible (along the lines indicated in the preceding paragraph). Every effort will be made to improve the recruitment of doctors by offering appropriate incentives such as better remuneration, refresher courses, etc.

To offset part of the increase in expenditure the free medical services previously provided to civil servants will be abolished as from 1971/72. This abolition is also justified on the grounds of the relatively better economic position of Civil Servants as compared with that of the rest of the population, and the existence of a medical aid scheme.

To enable doctors to find satisfaction in their professional work, the Government will take appropriate measures which will include:

- (a) provision of better working facilities in the form of diagnostic and other aids;
- (b) introduction of periodic visits to the districts by specialists from Queen Elizabeth II Hospital;
- (c) organization of refresher courses, clinical meetings and conferences;
- (d) provision of orientation training for medical officers, public health nurses and health assistants working together as a team;
- (e) provision of clerical assistance not only to give medical officers more time for professional activities but also to help raise the standard of reporting, recording and statistics;
- (f) delegation to medical officers of administrative authority and budgetary responsibility for health service operations in their areas.

The above measures will lead to an improvement in the quality of services to the people. Not only will more doctors be available, but people who can afford to pay doctor's fees will not crowd the outpatients' departments.

In the long run, Lesotho can only solve its critical shortage of doctors through an accelerated programme of training. The Government will seek bilateral and multilateral assistance to sponsor five to eight medical students every year for the next five years. To ensure their return to Lesotho after training,

candidates will be bound to serve the Government for a period not less than the total duration of their training.

13.2.3. Drugs, Medical Stores and Diagnostic Aids

The provision of more doctors will lead to an improvement in the quality of health services only if it is accompanied by more drugs and diagnostic aids. To this end, the estimates for drugs, bandages, etc. should be in accordance with the actual requirements and will, in the light of past experience, be not less than R100,000 annually. The present machinery and procedure for the procurement and supply of medical stores to Government institutions which has in the past resulted in shortages of some items and surplus stocks in other instances, will be changed to obviate these anomalies. The periodic preparation of a list of medical supplies, as well as the purchase and review of such supplies will be entrusted to a committee consisting of the Chief Medical Officer, the Psychiatrist, one District Medical Officer and the Pharmacist. A pharmaceutical laboratory for the quality control of drugs, the preparation of certain pharmaceutical products, forensic analyses and for the training of dispensers is envisaged.

13.2.4. Hospitals and Health Centres

There are seventeen hospitals and forty-two health centres, thirty five outstations and thirty-one dispensaries. The missions own and run eight hospitals and twenty-one health centres, outstations and dispensaries with the Red Cross. None of the mission hospitals is located in the district headquarters and four are in Maseru district alone. While Government district hospitals are staffed by at least one doctor, the position in mission hospitals is uncertain and variable. Some have to work for varying periods without a doctor and rely on nursing sisters or doctors from neighbouring hospitals. Nevertheless, these are generally well maintained, run and attended to.

Surgical equipment and instruments for routine surgery are available in district hospitals. Fractures, stab wounds, and burns constitute a sizable proportion of surgical cases. Blood for transfusion services is at present stored at Maseru, the only centre where the necessary laboratory facilities are available and from where blood is sent to outlying hospitals where required.

The most unsatisfactory part of the district hospitals are the outpatients departments, some of which are far from the hospitals. About R15,000 per annum will be spent on improvements of district hospitals (except for Quthing where such improvements are already underway).

X-ray plants of different vintages and in different stages of repair and efficiency are available in all government and most mission hospitals. These are generally operated by a dispenser with no training in radiography. It is at present not unusual for an x-ray unit to be out of commission for periods of up to six months as a result of lack of servicing and maintenance facilities. In most hospitals there is a lack of even rudimentary laboratory facilities. The Government intends to rectify this situation by training at least nine x-ray and four laboratory technicians during the plan period and establishing minimum facilities for clinical side-road work in each district hospital. R89,500 will be spent over the period to provide proper x-ray equipment (R50,000) and four-wheel-drive ambulances for district hospitals (R20,000). Other items totalling R19,500 will include furniture for clinics, some laboratory equipments and tools for the orthopaedic workshop at Queen Elizabeth II Hospital.

During the plan period improvements at Queen Elizabeth II Hospital will continue in order to make it a national reference hospital. A crucial project in this regard is the provision of a laboratory which will function under the control of a pathologist, assisted by a microbiologist and other suitably qualified technicians, and where haematology, bacteriology, biochemistry and possibly histology will be done. Such a laboratory is necessary also to provide the much needed training in laboratory techniques. Although certain laboratory facilities already exist at Queen Elizabeth II Hospital, improved and additional facilities have to be developed for public health work, which would then no longer have to be referred to laboratories in the Republic of South Africa. A maternity wing will be constructed at a cost of R75,000 at the Queen Elizabeth II Hospital.

In addition to the development of Queen Elizabeth II Hospital as national reference hospital, two other hospitals, the ones at Mohale's Hoek and at Leribe will be upgraded and developed as regional hospitals to serve the Southern and the Northern areas respectively. At least R300,000 will be spent for this expansion and improvement during the plan period.

To ensure proper distribution of health services provided by the Government and other voluntary agencies, no new centres will be established without prior consultation and approval by the Ministry of Health. Co-ordination, supervision or guidance and support, which the missions and Red Cross have previously sought directly from the Ministry, will be decentralized to the district medical officer and his staff. Co-ordination at district level will be strengthened by regular meetings of all health personnel in the district

Regarding the construction of health centres, the Government's long term objective will be to provide a health centre service for the entire population. There will be a number of health centres. Each health centre will serve a specified area and will have sub-centres so sited that nobody in that area will be more than 3 miles from a clinic point. To implement this policy will require building thirty-one additional centres. But because of staff shortages and financial stringency, only nine centres will be provided during the plan period, at a total cost of R90,000.

Each centre will be staffed by one staff nurse with midwifery and public health qualifications, one health assistant and one unskilled worker. They will also visit the sub-centres.

13.2.5. Nursing

There are five nurses to a doctor and one nurse for every fourteen beds. However, the matrons, sisters and staff nurses in hospitals have a heavy schedule of administrative responsibilities. Some mission hospitals and all health centres depend almost entirely on the nursing personnel for their diagnostic and curative work. At present two categories of nursing personnel are produced: fully qualified and registered nurse/midwives, who receive four and a half years training in nursing at the school of Queen Elizabeth II Hospital or that of Maluti Hospital, Mapoteng, followed by one year's training in midwifery at the former school; and entrolled nurses who receive three and a half years' training in nursing at Scott Hospital, Morija. The output in the first category varies from six to twelve nurses per annum while in the latter only ten nurses have been trained so far. The minimum entrance qualification is Junior Certificate and to the course at Morija, it is below the J.C. Level.

Nurses play a very important part in providing the country's health services, especially in the outlying areas. Since they work largely without direct supervision by doctors, it is important that they should be properly trained. In view of the demands of modern medicine and the necessity for nurses proceeding to post basic courses to have matriculation certificate, this will in future be the minimum educational qualification for all student nurses and midwives: with this proviso, that if the number of candidates with this level of education is insufficient, suitable candidates with the Junior Certificate may be accepted for such training. The present nursing course will be reviewed and brought into line with the broad pattern of basic health services, especially in the rural areas. The training of qualified nurses will be correlated with the probable needs of such staff in the coming years since existing posts are nearly all filled. The nursing school will be required to pay more attention to the organization of refresher and orientation courses for existing

staff. It is the aim to discontinue the training of enrolled nurses and midwives.

Other reorganizational improvements in the nursing school will include provision of at least three additional tutors at a cost of R5,534 per annum. This will permit them to exercise the necessary supervisory liaison with the hospitals. A Consultative Committee on nurse training consisting of the chief matron of Queen Elizabeth II Hospital and the sister in charge of the nursing school will be formed to co-ordinate and supervise all nurse training.

13.2.6. Nutrition

Nutrition surveys carried out between 1956 and 1960 under WHO led to the development of an applied food and nutrition scheme which has been in operation since 1962. Under the supervision of the Ministry of Agriculture, there is a Bureau of Nutrition which, with the assistance of OXFAM, the Save the Children Fund, the Catholic Relief Services, the World Food Programme and the technical support of W.H.O., F.A.O. and UNICEF. It has a wide ranging programme, covering:

- school, home community gardens
- young farmers clubs
- poultry and egg production
- school feeding, and
- adult education in nutrition and home economics

Training and extension of education facilities have been developed considerably in the last few years through the construction of nine nutrition centres. As mentioned elsewhere in this plan (7.3.6), two more centres will be built during the plan period. The nutrition agents, formerly under the Ministry of Health have now been transferred to the Ministry of Agriculture in order to strengthen nutritional education programme at the centres. The Ministry of Health will, however, continue to provide technical advice at the headquarters level and the assistance to its staff at the peripheral level. Nutrition and home economics instructors will assist in the training of health assistants and other public health personnel. No additional financial expenditure will be involved in all these activities.

13.2.7. District and Rural Health Organization

Team work by the public health nurse, the health assistant and the medical officer in the position of leader, supervisor and co-ordinator is far from assured. The programmes of field work by the public health nurses and health assistants are usually planned and implemented without prior consultation

with the medical officers and it is not usual for a nurse or health assistant to accompany the doctor on his visits to the health centres in his area.

Among the factors responsible for this situation are the heavy preoccupation of the skeleton staff of the Ministry with administrative duties and their consequent inability to be in the field as often as necessary, the quick and continuous turnover of medical officers, the shortage of medical officers with training or experience in community health work and the lack of possibilities for orientation and/or refresher training of the medical officer and his district team. To overcome these difficulties the Government will establish a training Institute attached to or working in co-operation with the Polytechnic (National Technical Education) Institute. This Institute in-service orientation courses could be held there for medical officers, public health nurses and health assistants to ensure that they will work as a team. Conferences seminars and discussions of any interesting cases will also be held there. Except for a few items of demonstration equipment to be acquired, this project will cost little.

Under the WHO/UNICEF project for the development of basic rural services there is already a doctor who could conduct these in-service course. Other medical officers or specialists will also give lectures at the Institute.

The health assistants have a key role to play in the activities of the hospital. To ensure their effective operation a number of measures will be taken, such as:

- (a) compulsory attendance by rotation, at a twenty four month course given by the Public Health Division of the Ministry of Health in Maseru;
- (b) preparation of a manual for guidance of health inspectors and assistants;
- (c) elaboration of a programme of activities by health assistants and public health nurses at the district level;
- (d) meetings between medical officers, public health nurses, health inspectors and health assistants to permit them to take stock of the situation in the district and evaluate the progress made in community health programmes.

At the periphery, missions and voluntary agencies provide the basis of health services and their role and importance increase in proportion to the distance from the urban population centres. Most of the peripheral units, besides providing medical care, also provide non-domiciliary midwifery, and antenatal and infant care. Some health centres provide immunization against diphtheria and whooping cough, but only a few

provide protection against smallpox, tuberculosis and poliomyelites. It is the aim to have full immunization service provided at these centres.

The siting of the centres has, however, been uncoordinated and haphazard with the result that Government, mission and Red Cross services are located close together in some areas, whereas large areas are without coverage from any source. In future the establishment of new units will have to be properly co-ordinated through the Ministry.

13.2.8. Health Planning and Administrative Re-organization

To ensure the evolution, implementation and continuous revision of the national health programme the Government recently established a Health Programming Unit which will be headed by a senior technical officer. The Unit will plan and co-ordinate all private and public health activities and will be responsible for convening monthly meetings of the recently established Health Planning Consultative Committee under the chairmanship of the Permanent Secretary or Chief Medical Officer. This includes representation of private hospitals.

The statistical Unit of the Ministry of Health will also be under the director of Statistics. In addition to the collection, compilation and analysis of data required for planning the statistical unit will constitute a skeleton epidemiological service at the Ministry.

The Planning Officer will devote attention to manpower problems and the training of all categories of health personnel in consultation with the chiefs of the divisions of the Ministry. He will also take initiative in arranging seminars, courses and conferences at the Training Institute envisaged.

TABLE 13.3

Summary of Estimated Capital Expenditure, 1970/71 — 1974/75

CAPITAL	1970/71	1971/72	1972/73	1973/74	1974/75	Total
Upgrading and Improvements to Quthing Hospital	135,000	—	—	—	—	135,000
Equipment for District Hospitals	—	10,000	15,000	15,000	10,000	50,000
Other Improvements to District Hospitals	—	9,000	10,000	10,000	10,000	39,000
Maternity Wing at Queen Elizabeth II Hospital	—	45,000	30,000	—	—	75,000
Upgrading and Expansion of Leribe and Mofale's Hoek Hospitals	—	—	100,000	100,000	100,000	300,000
Health Centres	13,000	20,000	17,000	20,000	20,000	90,000
Equipment	—	17,000	17,000	17,000	17,000	68,000
Mental Observation Wards	12,000	16,500	—	—	—	28,500
Central Pharmaceutical Laboratory	—	20,000	25,000	—	—	45,000
TOTAL	160,000	137,500	214,000	162,000	157,000	830,000

TABLE 13.4

Additional Recurrent, 1970/71 to 1974/75

	1970/71	1971/72	1972/73	1973/74	1974/75	Total
Doctors Salaries including increments to existing ones		35,000	55,000	75,000	95,000	260,000
Drugs and other Medical Supplies		135,000	140,000	145,000	150,000	570,000
Nursing Tutors		5,500	5,700	5,900	6,100	23,200
Staff for Health Centres		2,000	5,000	5,000	5,000	17,000
Other Charges for monthly meetings at District Hospitals		5,000*	6,000	6,500	7,000	24,500
Other Staff including x-ray and laboratory technicians			3,000	5,000	6,000	14,000
Central Pharmaceutical Laboratory			10,276	10,276	10,276	30,828
TOTAL		182,500	224,976	252,676	279,376	939,528

*Amounts reduced by expected revenue from fees of civil servants.

**Net of revenues in form of fees.

13.3. WATER SUPPLIES, SEWERAGE AND SANITARY SERVICES.

13.3.1. Water Supplies

The present programme covers the improvement of water supplies in the main towns of the country and in a number of villages. The urban supplies are to be constructed on a commercial basis by the Ministry of Works; village schemes are mainly carried out as Community Development projects, under which the Government provides materials and technical supervision while the villages provide part of the cost and free labour and are responsible for subsequent maintenance. The Ministry of Works provides overall supervision of the village water supply schemes, and is responsible both for initial advice on planning projects and for overseeing maintenance.

Consultants have been engaged to estimate water requirements and the costs of meeting them for the main centres. Table 13.5 shows the proposed phasing of the programme over the quinquennium, but most of the costs shown are rough estimates, since they have been prepared in advance of the receipt of the consultants' report. They have been calculated on the assumption that 20 gallons per person per day should be provided in the smaller towns, 30 gallons per person per day in the larger towns and 40 gallons per person per day in Maseru.

Phase I of the programme for Maseru was commenced in 1969/70, and is designed to produce 1 million gallons per day; the second phase will produce 2 million gallons per day. The estimate for village water supplies reflects the ability of the Community Development Department to plan and supervise projects. Additional technical assistance is being requested for this work; if it is obtained, it should be possible to increase the rate of spending.

Water supplies (other than village water supplies) will be provided as far as possible on a commercial basis. Charges will normally be fixed at a level which will meet capital charges at 7%, as well as recurrent expenditure. In the case of some of the smaller schemes, however, this may not be possible, and some subsidy on capital costs may be required. Charges will, however, fully meet maintenance costs. The schemes will therefore be financed as far as possible from commercial loans, although a grant or soft loan element may also be needed.

13.3.2. Sewerage and Sanitary Services

Sewerage projects have in the past been confined to certain parts of Maseru; there has been no overall survey of the need for sewerage and other sanitary services. It has been decided to carry out such a survey so as to determine the most economic means of meeting needs for improved sanitation in the principal centres. This may in certain towns involve the installation of sewerage systems. Table 13.6 gives a hypothetical picture of possible expenditure on sewerage schemes over the 5-year period. The phasing follows the programme for the improvement of water supplies. It is, however, probable that surveys will show that it would not be economic to instal sewerage systems in some of these towns in the foreseeable future. The funds required are therefore likely to be substantially less than the total shown in the table.

It is also proposed to improve sanitary services in a number of towns. Where sewerage is not to be installed, this will involve the provision of additional trailers. Public latrines will be constructed in several centres. A detailed programme has not been drawn up for these services, but it is estimated that R176,000 will be required over the quinquennium. The proposed phasing of expenditure is shown in Table 13.7. These costs will, however be reduced if all the sewerage systems referred to above are installed. Thus the total requirement for sewerage and sanitary services may be less than the sum of the estimates shown in these tables, but at the present time it is not possible to say how much duplication there is between them.

TABLE 13.7

Sanitary Services — 1970/71 to 1974/75

R'000

1970/71	1971/72	1972/73	1973/74	1974/75	Total
28	37	37	37	37	176

Charges are made for sanitary services, and very little additional expenditure will fall on the recurrent budget.

Summary

Development expenditure over the quinquennium on water, sewerage and sanitary services is estimated as follows:—

TABLE 13.8

Water, Sewerage and Sanitary Services, 1970/71 to 1974/75

R'000

	1970/71	1971/72	1972/73	1973/74	1974/75	Total
Water	178	292	651	543	441	2,105
Sewerage	71	179	424	268	303	1,245
Sanitary services	28	37	37	37	37	176
Total	277	508	1,112	848	781	3,526

TABLE 13.5

Water Development 1970/71 — 1974/75

R'000

SCHEME	1970/71	1971/72	1972/73	1973/74	1974/75	Total
Maseru I	36	64	—	—	—	100
Maseru II	—	—	210	80	30	320
Teyateyaneng	8	94	68	—	—	170
Mohale's Hoek	8	37	125	—	—	170
Roma	2	6	75	26	—	109
Moriya	2	6	61	7	—	76
Ficksburg Bridge	2	6	14	33	—	55
Peka	1	—	38	37	—	76
Butha-Buthe	—	—	—	46	136	182
Leribe	—	—	—	82	100	182
Mafeteng	—	—	—	172	10	182
Mokhotlong	12	19	—	—	40	71
Qacha's Nek	—	—	—	—	65	65
Township Water Supplies	3	—	—	—	—	3
Village Water Supplies	95	60	60	60	60	335
Water Department accommodation	4	—	—	—	—	4
Water meters	5	—	—	—	—	5
	178	292	651	543	441	2,105

TABLE 13.6

Sewerage Development 1970/71 — 1974/75

R'000

SCHEME	1970/71	1971/72	1972/73	1973/74	1974/75	Total
Maseru — Hoohlo's	45	15	—	—	—	60
Maseru West	20	66	—	—	—	86
Maseru — General	2	50	250	138	—	440
Teyateyaneng	4	20	50	30	—	104
Mohale's Hoek	—	20	50	30	—	100
Ficksburg Bridge	—	1	74	—	—	75
Rutha-Buthe	—	1	—	—	74	75
Leribe	—	2	—	20	78	100
Mafeteng	—	1	—	25	49	75
Quthing	—	1	—	5	24	30
Mokhotlong	—	1	—	10	39	50
Qacha's Nek	—	1	—	10	39	50
Total	71	179	424	268	303	1,245

NOTE: Apart from the project for Maseru — Hoohlo's and Maseru West, all the schemes are dependent upon a survey showing them to be both feasible and economic compared with alternative methods of sewage disposal.

13.4 HOUSING

By far the greater part of Lesotho's population live in rural areas and make their own provision for housing. There has, however, been some increase in urban populations, especially in Maseru whose population (including some outlying villages) was estimated at 19,000 in 1966. The total urban population, however, even if some peri-urban areas are included, is less than 50,000. Even this limited urban growth, however, has already given rise to problems of peri-urban sprawl — especially around Maseru — overcrowding, poor conditions and high rents. The problem has been aggravated by two factors. First, there have been difficulties in acquiring land so as to develop housing on a planned basis. Secondly, credit supplies have been limited. Comparatively wealthy people have been able to obtain loans from commercial banks for the building of houses, and some house building has been financed by co-operative societies. However, the building societies, which are South African in origin, have collected deposits in Lesotho but have until recently been prevented by South African law from lending money for housing outside the Republic.

Government involvement in housing in the past has been mainly confined to the provision of accommodation for civil servants. When virtually all the higher civil service was expatriate, Government had necessarily to make provision for its housing. Moreover, since there was little urban development, houses were not available for local civil servants, and these too had to be provided by Government. With the growing localisation of the senior civil service, Government has continued to provide houses for local officials on much the same scale as was provided for expatriates in the past. Rents payable for such houses — and in particular for larger houses — have been substantially subsidised.

Housing Policy and Programme

Government's housing policy is as follows:

- (a) To encourage the growth of the private sector in the provision of houses. This will involve the following specific measures:—
 - (i) Legislation will be enacted providing for the possibility of transferable leasehold. Such legislation will permit the building societies to make loans in Lesotho.
 - (ii) A Housing Company will be established under the Lesotho National Development Corporation. This will have the responsibility for raising the capital required for housing development, acquiring and developing land needed for housing, constructing houses for sale or renting, and promoting housing construction.
- (b) In the long run to withdraw as far as is practicable from the field of public service housing. Civil servants will be encouraged to buy their own houses. As part of this policy, consideration is being given to the possible reduction and eventual elimination of the housing subsidy for civil servants. This would involve the valuation of Government houses so as to establish commercial rents, the renegotiation of contract terms for expatriates at present eligible for subsidised housing, and a re-examination of the special allowances paid to civil servants working in outlying areas where commercial rents would be very high. Special consideration will be given to the position of officers in institutions (e.g. hospitals, police, prisons) where the officer concerned has no choice of accommodation.

- (c) To meet the short-term need for public service housing, especially for expatriate experts who will be required for implementing the development programme. It is estimated that there is an immediate need for 30 houses and 8 flats in Maseru to meet these needs, and that the lack of these houses could have a serious impact on the capacity of Government, especially in the field of construction and other works. These houses and flats will be completed in 1971/72 at a cost of R383,000. There is also a shortage of public service housing in towns outside Maseru, where the development of the private sector in housing may be expected to be slower. Houses will be constructed in Leribe, Teyateyaneng, Mohale's Hoek, Qacha's Nek and Mokhotlong. The total cost of the programme is estimated at R163,000, and it will be carried out in 1972/73 to 1974/75. The phasing of expenditure on the programme is shown in Table 13.9.

TABLE 13.9
Public Service Housing

R'000

	1970/71	1971/72	1972/73	1973/74	1974/75	Total
Maseru Houses and Flats	105	308	—	—	—	413
District Staff Houses	—	—	54	54	55	163
Total	105	308	54	54	55	576

^oIncluding R30,000 for purchase of house from British Government.

- (d) To ensure that, as far as possible, urban housing development is on a planned basis. Part of the functions of the Town and Planning Adviser is to recommend areas for planned housing development, incorporating higher housing densities. In this way it is hoped to limit the uncontrolled spread of housing areas — especially around Maseru — and make possible the provision of public services (such as roads and water and sanitary services) on a more economic basis.

It is not possible under present circumstances to forecast total investment in housing over the quinquennium. There is no information on the possible demand for building society funds. A manager will be recruited for the proposed housing company;

one of his first tasks will be to estimate housing needs in so far as they are not likely to be met by the building societies. Assistance may be needed from government towards the administrative and other overhead costs of the company, but it is expected that most of its funds will be raised on commercial terms either through the Development Bank or in other ways. Soft loans will, however, be required for low-cost housing schemes, but no estimate has been made of the amounts involved.

Government's recurrent expenditure on housing is expected to fall over the plan period as its stock of houses is gradually reduced. The proceeds of any sales of government houses will be paid into development funds.

13.5. MINOR URBAN SERVICES

A number of improvements in urban services are included elsewhere in the Plan. These include the development of roads, water, sewerage and other sanitary services, housing, public buildings and markets. There are at present no overall plans for the development of any urban area, but a Town and Country Planning Adviser has been recruited under U.N. Technical Assistance, and it is hoped that during the period it will be possible to produce a plan for at least Maseru and one or two other centres.

In addition to the developments listed above, some minor services will be improved over the plan period. The most important of these are as follows:—

Street Lighting Improvements are planned in Maseru in 1970/71, and it is planned to extend street lighting to Mohale's Hoek and Leribe in 1971/72. Further development will be dependent on the expansion of electricity supplies. It is, however, planned to spend some R12,000 per annum in the period 1972/73 to 1974/75 on this service. Expenditure on street lighting over the quinquennium will thus be as follows:

TABLE 13.10
Street Lighting

						R'000
1970/71	1971/72	1972/73	1973/74	1974/75	Total	
3	14	12	12	12	53	

Pounds. It is planned to construct pounds for straying livestock in the eight district centres outside Maseru and in 43 other

centres. It is estimated that the pounds in the district centres will cost R1,500 each, and those in the smaller centres will cost R500 each. The total expenditure of R33,500 will be phased as follows:

TABLE 13.11

Pounds					R'000
1970/71	1971/72	1972/73	1973/74	1974/75	Total
—	12	7	7	7	33

Additional recurrent costs of running the pounds will be met from fees. The running costs of street lighting will depend on the cost of electricity in the various centres. In some towns it is hoped that these costs will be met from local taxes.

13.6. SPORTS

In Lesotho sports are very popular and varied and take an important place in schools and clubs. Since 1968 the Lesotho Government has played a significant role in sports development. An order has been passed which has established a Sports Council to promote all sports activities, provide adequate facilities and assist Basotho sportsmen to participate in international sports.

At present, sporting facilities are highly inadequate and every effort will be made to improve them. In Maseru there is an urgent need to improve the stadium and also to establish a centre, large enough to cater for the varied interests of the sporting public. The need for the construction of a competition size swimming pool is also felt. It is planned to cover these needs within the 5-year period.

Adequate sporting facilities will be extended gradually to other main centres of the country, starting with Leribe and Mphahle's Hoek.

The total cost of the sports development programme is estimated at approximately R250,000 to be phased evenly over the period 1971/72 to 1974/75.

14. GENERAL GOVERNMENT SERVICES

14.1. POLICE

There is a serious shortage of accommodation for the Police in many parts of the country. Staff in several towns are living in very old quarters which are unfit for habitation, or in shacks and old huts. This has an unfavourable effect on morale and efficiency. Apart from the replacement of the 80 year old police station at Leribe, the projects for the plan period consist almost entirely of new police quarters. The principal projects are as follows:—

Maseru

Eleven officers' quarters and 20 other ranks' quarters will be built for No. 2 Division. 33 other ranks' quarters will be built for the Police Mobile Unit.

Leribe

30 other ranks' quarters will be built.

Butha-Buthe

20 other ranks' quarters will be built.

Mokhotlong

31 other ranks' quarters will be built.

Qacha's Nek

24 other ranks' quarters will be built, and stabling will be provided for 20 horses.

The phasing of the programme is shown in Table 14.1

TABLE 14.1

Police Building Programme

R'000

	1970/71	1971/72	1972/73	1973/74	1974/75	Total
Maseru No. 2 Division						
Officers' quarters	40	64	—	—	—	104
Other Ranks Quarters	—	—	52	—	—	52
Police Mobile Unit						
Other Ranks Quarters	30	15	—	—	30	75
Leribe Other Ranks' Quarters	30	56	—	—	—	86
Police Station — Leribe	—	—	50	—	—	50
Butha-Butha Other Ranks' Quarters	—	—	20	30	—	50
Mokhotlong — Other Ranks' Quarters	—	—	—	96	28	124
Qacha's Nek — Other Ranks' Quarters	—	—	—	—	84	84
Stables	—	—	—	—	8	8
TOTAL	100	135	122	126	150	633

14.2. PRISONS

The conditions in several of the country's prisons are very poor. Some of the prisons are old and dilapidated; prisoners are insufficiently employed; staff training is inadequate; and there is a serious shortage of staff housing. In these circumstances, the prisons are necessarily inadequate to their task of rehabilitating offenders.

The policy of government for improving this situation is as follows:

- (a) Government will explore alternative means for the treatment of offenders, and will consider the extended use of such measures as probation, parole and suspended sentences. This will help to reduce the pressure on the prison structure.
- (b) First or minor offenders will, where appropriate, be housed in open prisons with opportunities for farm work.
- (c) Staff training will be strengthened in the form of recruitment, refresher and promotion courses.
- (d) More funds will be made available for prison industries so as to permit the more productive employment of prisoners.
- (e) The living conditions of officers will be improved.

The principal projects to be carried out during the period will be as follows:—

Prison Training School

A training school for prison officers is being constructed within the precincts of the Central Prison.

Female Prison and Staff Quarters, Maseru

A new prison for 120 females and accommodation for 13 staff is being constructed to replace the old gaol which is in a state of collapse.

Staff Quarters

84 officers' quarters will be constructed over the period at various prisons.

Improvement to Existing Prisons

Security lighting will be provided at all except open prisons.

Open Prisons.

Open prisons will replace the existing dilapidated prisons at Mohale's Hoek, Mafeteng and Qacha's Nek. They will be sited

away from the townships and will provide training in market gardening and animal husbandry.

The phasing of the programme will be as follows:—

TABLE 14.2
Prison Programme

R'000

	1970/71	1971/72	1972/73	1973/74	1974/75	Total
Staff Training School	19	—	—	—	—	19
Female Prison	27	—	—	—	—	27
Staff Quarters	—	46	60	—	—	106
Improvements to existing prisons	—	—	9	—	—	9
Open prisons:						
Mohale's Hoek	—	—	—	22	—	22
Qacha's Nek	—	—	—	11	—	11
Mafeteng	—	—	—	—	22	22
Total	46	46	69	33	22	216

Recurrent expenditure on prisons should not be increased by this programme. Net revenue from prison industries and farms should increase (or the cost of feeding prisoners be reduced) by the provision of more funds for prison industries and the establishment of open prisons. The cost of maintaining staff quarters will be more than covered by rents. There should therefore be no additional costs falling on the budget.

14.3. OFFICE BUILDINGS

As is emphasised elsewhere in the Plan, major efforts will be made in the plan period to reduce the relative cost and improve the efficiency of public administration. One factor making for inefficiency at the present time is the poor and badly planned accommodation occupied by much of the public service.

Most government offices are concentrated in Maseru. For many years new offices have been built entirely on an *ad hoc* basis by constructing small offices here and there and adding to existing buildings. There is now no spare office accommodation available in Maseru. Some Ministries and Departments are overcrowded and have no room for new functions, are ill sited or overdispersed, or are housed in unsuitable old residences and other buildings which are in a poor condition but which occupy valuable commercial sites. All this reduces efficiency and involves a wasteful use of resources.

Policy and 5-year programme

Office building has only a low priority in the allocation of investment resources. Work will be carried out only when it can be justified in terms of increased efficiency in the public service or where buildings are in such a poor condition that their further maintenance would be uneconomic. Within these limitations, government intends to develop government office accommodation on a planned basis. All headquarters offices in Maseru (except those of the Ministry of Works) will be put in the area of the present main headquarters buildings; offices serving the public will be concentrated in the market/bus terminal area. Departments will be grouped on a rational basis in terms of complementary functions.

The greater part of the programme is for offices in Maseru. Further consideration will be given to office needs outside Maseru at a later date in the light of administrative requirements at the time.

The main projects for the quinquennium are as follows:—

General Office Block, Maseru

A new block will be constructed to provide some 15,000 square feet of office space for the Department of Commerce and Industry, the Department of Labour, the Ministry of Justice, the Department of Cooperatives and a new Department of Lands and Surveys. The total cost is estimated at R190,000 and the block will be completed in 1973/74.

Ministry of Works

Most of the headquarters of the Ministry of Works is now in old huts, which are inconveniently situated, being remote from the Ministry's operating branches. There is no accommodation for additional professional and technical staff who will be required for the Plan. A new block will be built next to the Roads Office, the Water Supply Branch and the Government Garage and Workshop, and the site of the proposed Plant Pool. The office space provided will be 11,760 square feet; the cost is estimated at R96,000. The building will be completed in 1971/72.

Ministry of Finance

An extension will be built to the Ministry of Finance to house certain sections of the Ministry which are now separated from it in temporary accommodation or are working in very poor overcrowded conditions. These include the Central Planning and Development Office, the Department of Customs and Excise and the Income Tax Branch. 5,000 square feet will be provided at an estimated cost of R55,000. This will be completed in 1972/73.

Aliens Office, Maseru Sub-Accountancy and African Pioneer Corps Pensions Branch.

A new building is to be constructed near the bus station to accommodate these offices. The Maseru Sub-Accountancy is the most important revenue collection point in the country. Its present office is totally unsuited for the purpose. The new Sub-Accountancy will be built on open plan style and will offer improved facilities for both the staff and the public. The main work of the Aliens Office is the issuing of passports; this is an essential service in view of the country's heavy dependence on employment opportunities in South Africa. The present head office is overcrowded and cannot accommodate essential central records. The organisation is therefore inefficient. The Maseru District Passport Office is within the head office. This will be moved to the new building. It will then be possible to provide both additional space at the head office and better arrangements for storing records. The new building will also accommodate the African Pioneer Corps Pension Office, at present housed in an old shed in poor condition. In all, some 7,000 square feet of office space will be provided. The project will also include the shifting of the bus station to a nearby site — a move which is needed on town planning grounds. The work will be completed in 1972/73.

Border Posts

Under the Customs Agreement with Botswana, South Africa and Swaziland, Lesotho's share in customs revenue will depend on the level of her imports. It is therefore necessary to establish machinery for collecting import statistics systematically. Posts are being constructed as a matter of urgency at points of entry. The posts at the two main entry points — Maseru and Ficksburg Bridge — will be designed to permit a rapid flow of traffic (including an increasing number of tourists) and will involve road reconstruction and the provision of parking space. Other simpler posts are being built at Sani Pass, Caledonspoort, Van Rooyen's Gate and Qacha's Nek. The project will be completed in 1971/72 at a cost of R172,000.

Courts

These include magistrates' courts and central and local courts. A major element in the programme will be the construction of magistrates' courts at district headquarters. Magistrates and their staff share offices with the local administration. These offices are generally overcrowded, and the joint use of the accommodation is highly inconvenient. Many of the District staff of other ministries work in old and inadequate offices. The construction of new magistrates' courts will relieve

the congestion in the District Administration offices and will generally permit an increase in the efficiency of local government. The cost of new magistrates' courts is estimated at R282,000 over the period. R300,000 will also be spent on central and local courts, many of which have virtually no accommodation at present.

Other Buildings

These will include an extension to the Bureau of Statistics, additional offices for the Livestock Division of the Ministry of Agriculture, passport offices and offices for chiefs in the Districts, an office for Maseru Rural District Administration, the purchase of a building in Mohale's Hoek for a Sub-Accountancy, the purchase and adaptation of a building for the Lesotho High Commission in Nairobi, and various minor improvements. Tentative provision is also made for a yard for a Town Engineer for Maseru if one is appointed during the period.

Table 14.3 shows the phasing of the programme over the period.

TABLE 14.3

Office Building Programme

	1970/71	1971/72	1972/73	1973/74	1974/75	Total
General Office Block	—	—	20	170	—	190
Bureau of Statistics	12	—	—	—	—	12
Border Posts	120	52	—	—	—	172
Ministry of Finance	—	20	35	—	—	55
Ministry of Works	28	68	—	—	—	96
Livestock Division	5	10	—	—	—	15
Passport & Aliens/Maseru	4	70	36	—	—	110
Sub-Accountancy/ A.P.C. Pensions	—	—	—	—	28	28
Town Engineer's Yard*	—	—	—	35	—	35
District Passport Offices	—	—	—	—	—	16
Chiefs' Offices	—	16	—	—	—	22
Maseru Rural District	—	—	—	—	—	207
Courts	11	70	90	—	—	22
Mohale's Hoek Sub-Accountancy	—	13	—	—	204	582
Nairobi Mission	—	20	—	—	—	13
Minor Improvements	10	20	20	20	—	20
Total	190	359	201	465	252	1,467

*Subject to future decision.

Any receipts from the sale of buildings which become surplus to requirements will be made available for development finance.

Recurrent costs arising from the programme will be negligible during the plan period.

14.4 RADIO LESOTHO (LESOTHO NATIONAL BROADCASTING SERVICE)

Since its establishment Radio Lesotho has played an important role in creating an awareness among the people of Government efforts and policies. At present the broadcasting time is nine hours a day. There is now good coverage over sixty percent of the country. It is intended to complete the installation of the 10 KW Short Wave Transmitter and provide an alternative transmission which will give effective coverage over the remaining part of the country. In addition to regular news, music and other programmes, Radio Lesotho also serves as an important vehicle for agricultural extension. It broadcasts daily a fifteen minutes programme for farmers.

Equipment, including a "Radio Link", will be purchased in 1971/72 for fitting out at a cost of R5,000 an Outside Broadcasts vehicle so that there will be live broadcasts of public events and other matters of general interest.

Commercial broadcasting will be started in 1971/72 and will be expanded in the following year with two hours extra broadcasting time each day. The service is expected to yield a revenue rising to R12,000 a year by 1974/75.

In 1972/73 an educational broadcasting service to supplement and improve primary and secondary school teaching will be started. In the following year this service will be expanded up to three hours extra broadcasting time in each day. This service will also be of considerable assistance to correspondence students.

Improved and additional studio space and equipment will be provided; these are essential for the commercial broadcasting and the schools service. A new studio block with three studios and a control room will be built in 1972/73 at a cost of R60,000. This will provide adequate studio facilities for broadcasting in Lesotho for the foreseeable future. The existing studios, which are in a converted dwelling house, will be used as offices, for preparatory work on programme preparation and for the records and tapes library.

An amount of R37,000 is required for studio equipment part of which (R20,000) it is hoped may be obtained by selling the VHF FM Transmitter and mast which are surplus to needs.

A small studio will be built in one of the more populated districts in 1974/75 to supplement the main studios in Maseru.

Table 14.4 shows proposed capital expenditure, and Table 14.5 shows additional recurrent expenditure on broadcasting over the plan period.

TABLE 14.4
Broadcasting: Capital Expenditure 1970/71 — 1974/75
R'000

	1970/71	1971/72	1972/73	1973/74	1974/75	Total
Completion of existing Broadcasting installations	8	—	—	—	—	8
Studio equipment	—	22	—	15	—	37
Outside broadcasting equipment	—	5	—	—	—	5
New Studios	—	—	60	—	—	60
Studio outside Maseru	—	—	—	—	8	8
Total	8	27	60	15	8	118

TABLE 14.5
Broadcasting: Additional Recurrent Expenditure
R'000

	1970/71	1971/72	1972/73	1973/74	1974/75
Printing of programmes	—	2	2	2	2
Tapes and records	—	2	2	2	2
Staff	—	—	4	7	7
Electricity	—	2	3	4	4
Other	—	1	2	3	3
Total	—	7	13	18	18
Less					
Revenue from Commercial broadcasting	—	3	6	9	12
Net Additional expenditure	—	4	7	9	6

4.5. INFORMATION SERVICES

Since its establishment over five-years ago, the Department of Information has undergone many changes and its staff turn-

over has been high. Because of staff shortages, inexperienced staff and financial limitations, the efficiency and productivity of the Department has declined during the last two years.

At present the Department has only a small Press and Publications Section which produces:

- (a) four news bulletins a day (two each in English and Sesotho) five times a week;
- (b) two regular publications, **Koena News** (English) every working day and **Molia** (Sesotho) three times a week;
- (c) an Annual Report which covers the activities of all Government Departments and Ministries; and
- (d) Calendars, press releases, leaflets and pamphlets for special campaigns.

In addition to these, the Department services the press and maintains a press cutting service. It also provides a public address system whenever possible for official functions and film shows in the Districts.

During the Plan Period the Government proposes to strengthen the Department through the provision of more staff, additional equipment and more funds to enable it to run a monthly magazine along the lines of the former Lesotho Quarterly. The circulation of **Molia** will also be increased. The Department will be provided with improved office accommodation by re-allocation of existing Government buildings. A regional office will be opened in Leribe during 1972/73 and a second one in Mphahle's Hoek in 1973/74.

Table 14.6 shows proposed capital expenditure on information services, and Table 14.7 shows additional recurrent expenditure over the plan period.

TABLE 14.6

Information: Capital Expenditure 1970/71 to 1974/75

R'000

	1970/71	1971/72	1972/73	1973/74	1974/75	Total
Photographic equipment	—	—	2	—	—	2
Cinema van and public address system	—	—	5	—	—	5
Reproducing equipment	—	—	—	4	—	4
District offices	—	—	4	4	—	8
Total	—	—	11	8	—	19

TABLE 14.7
Information: Additional Recurrent Expenditure
R'000

	1970/71	1971/72	1972/73	1973/74	1974/75
Staff	—	12	15	20	20
Publications (including distribution costs)	—	4	7	12	12
Overseas exhibits	—	—	—	—	1
Total	<u>—</u>	<u>16</u>	<u>22</u>	<u>32</u>	<u>33</u>
Less					
Revenue from sale of publications	<u>—</u>	<u>1</u>	<u>1</u>	<u>2</u>	<u>2</u>
Net Additional Expenditure	<u>—</u>	<u>15</u>	<u>21</u>	<u>30</u>	<u>31</u>

15. SAVINGS AND CREDIT

15.1 Background

In the past, Lesotho has been heavily dependent on external sources for its development finance. Some two thirds of capital formation has been in the public sector, and the greater part of this has been financed from aid. As far as the private sector is concerned, the principal financial institutions are the two commercial banks, South African Building Societies which accept deposits in Lesotho, South African Insurance companies, and the Post Office Savings Bank. The local advances of the commercial banks, although increasing, are equivalent to only a fraction of their level of deposits. The Building societies have accepted deposits in Lesotho but until recently were debarred under South African legislation from investing in housing in Lesotho. The Post Office Savings Bank, however, has a high proportion of local investments in its portfolio. Although the evidence is poor, it seems likely that there is net investment through the financial institutions and by private holdings from Lesotho to the Republic of South Africa of not much less than R10 million.

A situation in which Lesotho is heavily dependent on Government to Government aid for its investment funds, while it is an exporter of capital, is undesirable for many reasons. It increases the degree of dependence of the economy on external policies and decisions. It limits the types of investment which can be undertaken to those which will meet the criteria of aid donors. In particular, it limits severely the possibilities of investment in the private sector. Moreover, it involves substantial costs to the economy. Lesotho citizens are in effect lending to South Africa at rates which might be from $4\frac{1}{2}\%$ to 5% (or more in the case of building society investments) and Lesotho enterprises in the public and private sector are borrowing money at $8\frac{1}{2}\%$ to 9% .

Available information suggests that there is no immediate shortage of funds which could be made available for productive investment in the economy. The difficulties are of various kinds:-

- (a) *Demand.* The demand for funds for investment in productive enterprise in Lesotho is limited. Farming as at present organised has only a small absorptive capacity for productive investment. There are few Basotho entrepreneurs. There is a limited technical ability to draw up and execute "bankable" projects in the private sector.

- (b) *Institutional Problems.* The principal sources of funds in the private sector are the commercial banks. These normally prefer to lend short term, and therefore to some extent supply working capital for industrial and commercial enterprise. They are not, however, major suppliers of finance for fixed capital. Both the commercial banks have development corporations attached to them; these have made loans for infrastructure development, but have been little concerned in the provision of loans for indigenous enterprise. The banks will not normally make loans for agricultural development in view of the lack of security.
- (c) *Legal Problems.* The Lesotho land tenure system has created problems in providing credit in certain sectors. Difficulties have arisen in providing agricultural loans for longer periods than a season. South African building societies are now permitted to lend money in Lesotho, but require the introduction of a system of freely transferable leasehold before they will do so. Legislation to provide for this is now being prepared. The commercial banks have, however, made loans on a limited scale for house purchase on the security of bonds on the houses.

15.1.2. The main sectors in which the present provision of credit facilities is inadequate are as follows:—

Agriculture. There are at present two main sources of agricultural credit. First, there is the Agricultural Development Fund (ADF) which was financed by Oxfam, War on Want, Misereor and other voluntary agencies. It provides crop finance for such purposes as improved seeds, fertilisers, insecticides and tractor ploughing. It lacks resources and the necessary machinery for making longer term loans, and suffers from a lack of funds and staff. Secondly, there are credit unions and a few co-operative credit societies which have also made crop credits available on a limited scale. The total credit outstanding from all these sources is only of the order of R200,000—virtually all of it seasonal, and, as far as the credit unions are concerned, by no means all of it for agriculture.

Small Industry, Trade and Tourist Services. The commercial banks to some extent make overdraft facilities available to local enterprise in these fields, but do little to provide development capital. Moreover, they do not provide the technical assistance needed by small enterprises in identifying and working up projects. The banks adopt an essentially passive role, doing little to increase the effective demand for credit in these sectors.

15.2. Government Policy

The Lesotho Government's policy for the mobilisation of resources for private sector investment is as follows:—

- (a) To increase the level of local savings, and the extent to which these are channelled into local investment. *Per contra*, government is concerned to reduce the extent to which savings from Lesotho are invested in the Republic of South Africa.
- (b) To increase the effective demand for credit in the private sector, that is, the supply of sound projects which can meet the cost of credit.
- (c) To create a legislative framework permitting the greater local use of credit.
- (d) To identify and fill any gaps in the present institutional arrangements for providing credit, but to avoid the creation of overelaborate organisations with high overhead costs in terms of finance or scarce administrative and technical manpower.
- (e) To encourage and assist the organisations mobilising savings and providing credit at the village level such as credit unions and other co-operative organisations.

Programme for the Quinquennium

First priority will be given to filling the gaps in present institutional arrangements, and to do so in such a way as to fulfil other elements in government's policy as listed above. The principal instrument for carrying out this policy will be the creation of a Development Bank, but assistance will also be given to other organisations doing useful work in mobilising savings and providing credit.

15.3. The Development Bank

A Development Bank will be established to fill the gaps in the present credit structure. It will commence operations in 1971/72. Its main functions will be:—

- (a) To mobilise savings in Lesotho for the promotion of credit in the private sector. It will do so in association with other institutions such as the Lesotho Savings Bank, but it will consider the possibility of encouraging savings directly, through, for example, the issue of development bonds.
- (b) To encourage, in co-operation with relevant technical organisations, the formulation of investment proposals

in agriculture, local industry, commerce and tourism. The bank will be effective only in so far as it stimulates the effective demand for credit. It will therefore not act as a passive institution awaiting requests for loans; an important part of its functions will be to investigate investment possibilities and to provide help with the drawing up of proposals. For this purpose, it will need to draw on whatever technical services are available, but it will also need some technical expertise of its own, especially in agriculture and small industry.

- (c) To provide short and medium term loans to agriculture, either directly or through co-operative societies, credit unions or other farmers' organisations. In doing so, it will take over the Agricultural Development Fund. It will work closely with the extension staff of the Ministry of Agriculture, whose help will be needed in identifying projects and in judging the ability of individual farmers (or groups of farmers) to make good use of credit. It will not initially provide long-term credit (over five years). The risks would be too great and the demand too small. Long-term schemes will be carried out as direct government projects.
- (d) To provide development capital for Basotho entrepreneurs in industry, commerce and tourism, and working capital where this is not provided by the commercial banks.

It is not possible at the present time to make an accurate estimate of the credit requirements to be met by the bank over the quinquennium, but it is possible to suggest the orders of magnitude involved. The principal business of the Bank in its early stages will undoubtedly be the provision of crop credit for such items as fertilisers, improved seed, pesticides and so on. Requirements for this type of credit are estimated in Chapter 7 (Table 7.6). Demand for all other kinds of credit (medium term credit for agriculture, and credit for industry, commerce and tourism) cannot be accurately foreseen at the present time, but it is reasonable to suppose that they might rise to about a half of the value of crop credit by the end of the quinquennium. In the first year or two, however, the demand will be small. Table 15.1 shows how the demand for credit might be expected to grow over the quinquennium. The figures for crop credit are those in Chapter 7; those for other credit show a hypothetical pattern of growth for which there is little positive evidence. Since, however, it is expected that crop credit will form the most important part of the Bank's business over the quinquennium, a substantial margin of error in the figures for other credit requirements would not make much difference to the final figure.

TABLE 15.1**Credit Requirements 1971/72 — 1974/75****R'000**

	1971/72	1972/73	1973/74	1974/75
Crop credit	430	660	900	1,300
Other credit	100	250	450	700
Total	530	910	1,350	2,000

The capital structure of the Bank must reflect the nature of its business. The bank will in its earlier stages be primarily an agricultural bank, and will therefore be operating in a field where the costs of administration and the level of risk are high. The Bank will therefore require a high proportion of equity to loan capital; a ratio of 1 : 2 is commonly accepted as reasonable for mainly agricultural banks. This would imply that, by the end of the quinquennium the capital of the Bank would be R2,000,000, of which R700,000 would be equity and R1,300,000 would be loan (including local savings). The build up of the capital structure would reflect the demand for credit. On the basis of the figures in Table 15.1, the annual increments of capital required by the Bank over the quinquennium would be as shown in Table 15.2.

TABLE 15.2

**Development Bank Capital Requirements — Annual Increments
1971/72 — 1974/75**

R'000

	1971/72	1972/73	1973/74	1974/75	Total
Total	530	380	440	650	2,000
Equity	117	127	147	217	667
Loan	353	253	293	433	1,333

The initial equity of the Bank would therefore be about R700,000, entirely subscribed by Government, and payable by annual instalments according to the growth of the Bank's business. This will permit the raising of loans of the order of double the value of the equity. At a later stage, as the volume of non-agricultural business increases, it will be possible to increase the proportion of loan to equity. Government's equity participation will include funds transferred from the ADF when the Bank is established; until a detailed analysis is made of the

ADF's operations, no figure can be placed on this. Government will receive no direct return on its equity participation; surpluses will be put into the Bank's reserves.

Executive authority in the Bank will be vested in a Board including representatives of Government and the other interests principally concerned. A manager with experience of development banking will be appointed, and it is proposed to recruit an agricultural projects officer and an industrial projects officer with the necessary experience and technical knowledge to promote and assess projects in these fields.

15.4. Co-operatives and Farmers' Associations (See also 7.4.)

The co-operative movement will continue to play an important part in the provision of credit, especially for agriculture but also for housing and other activities. The most important co-operative credit organisations are the Credit Unions, which operate entirely on their members' own savings. There are also various smaller thrift and credit societies and housing societies. The co-operative societies' close contact with and knowledge of their members, as well as the joint responsibility which the societies accept, make them particularly suitable channels for agricultural credit. Moreover, they play an important part in mobilising local savings; the share capital of the credit unions alone in 1968 was of the order of R170,000.

The Ministry of Agriculture has also sponsored farmers' associations, which are more loosely organised than co-operative societies, and it is intended that these should develop into land co-operatives, joint farming schemes or multi-purpose associations. The greater part of the loans of the Agricultural Development Fund have been made to the Farmers' Associations, which operate in close contact with the extension officers of the Department. Although the Associations provide some funds themselves, they are less important in mobilising local savings than the credit unions.

The Development Bank will work closely with the credit and thrift co-operative societies, credit unions, farmers' associations and other bodies of this kind. The societies will be encouraged to keep their surplus funds with the Development Bank either directly or through secondary societies, and will thus act as a means of mobilising local savings. Similarly, the Bank will add to the resources available to the co-operative societies, credit unions and farmers' associations. The credit-worthiness of a well-run co-operative society may be considerably in excess of the sum of that of its individual members, and the existence of such societies should therefore permit a greater flow of credit into agriculture than would be possible without them. Credit itself

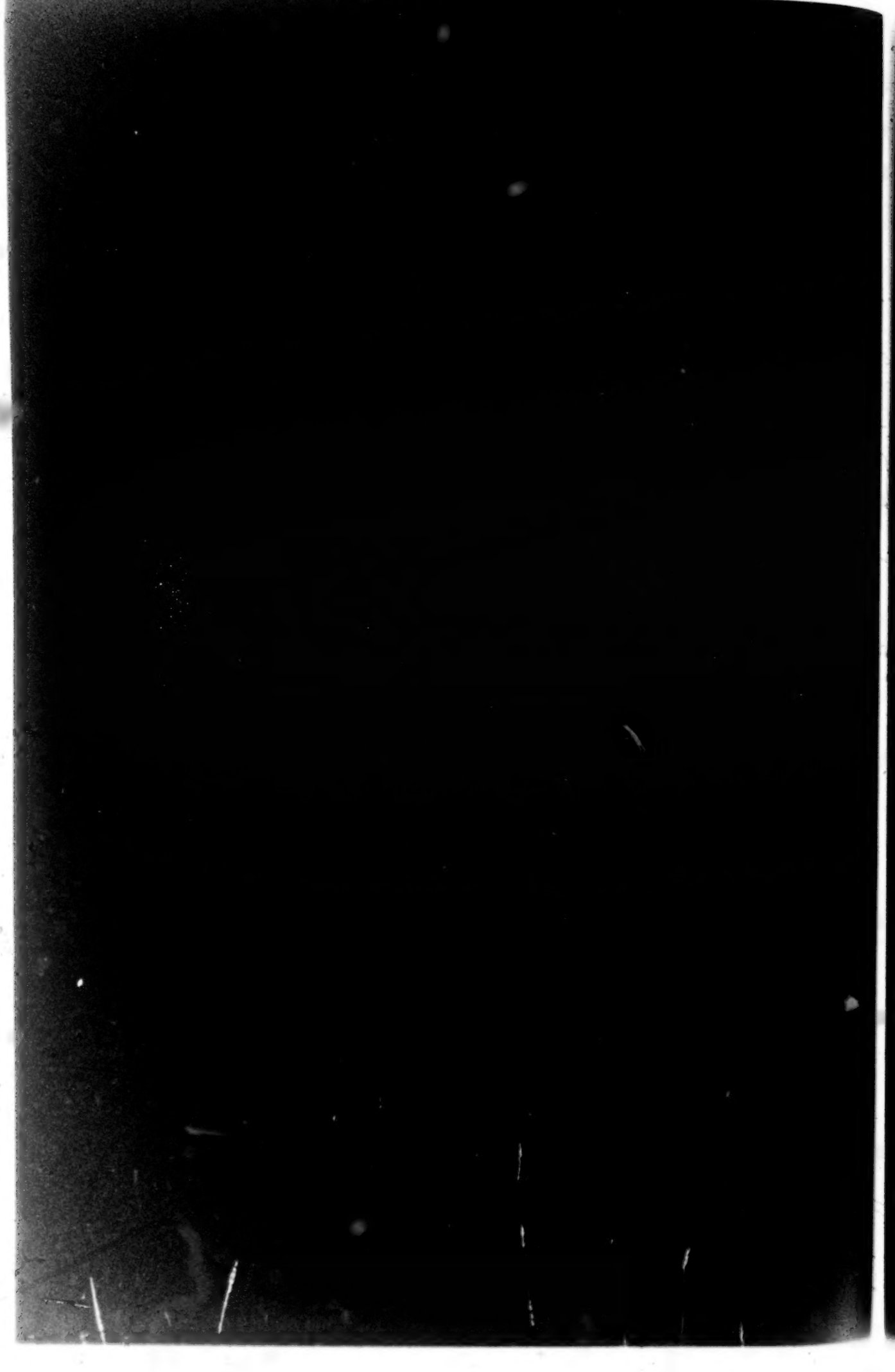
may be used more effectively if there are cooperative or other joint arrangements for the supply of the various inputs (improved seeds, fertilisers, insecticides and so on) which may be required. Moreover, the existence of intermediaries such as cooperative societies between the Bank and the individual farmer should greatly facilitate the Bank's work and reduce its operating costs.

15.5 Other Financial Institutions

As is emphasised above, the existing financial institutions act as a channel for the movement of savings from Lesotho to South Africa. The Lesotho Government is concerned to increase the local utilisation of the funds of these institutions, and will take the following steps to this end:—

- (a) Legislation will be introduced at an early date to provide for transferable leasehold, and thus permit the building societies to lend money for housing in Lesotho;
- (b) The Development Bank will borrow funds from the financial institutions;
- (c) Government will consider the possibility of issuing Development Bonds, to provide an outlet for local investible funds.

In the longer run, the net flow of funds to South Africa will fall as development inside Lesotho gets under way and provides profitable avenues for local investment.



16. FINANCE AND DEVELOPMENT

This chapter considers, first, the prospects for the recurrent budget over the plan period, and secondly, the financial resources likely to be available for development. These two are interconnected. The objects of the plan include the use of the recurrent budget in a more developmental way than has been the case in the past. In the long run, this means using the budget as a means for mobilising savings for development; more immediately the budget has to accommodate both the recurrent costs involved in development projects and the residual recurrent costs arising out of such projects. It also involves restructuring the pattern of recurrent expenditure so that greater relative emphasis may be placed on the more developmental activities of government.

16.1. THE RECURRENT BUDGET

16.1.1. Financial Background

Lesotho inherited a difficult budgetary situation at independence. There had been a period of increasing recurrent expenditure unmatched by an equivalent growth in revenue. There was a growing budgetary deficit, amounting to R6.3 million in 1965/66, or 160% the level of local revenue. This deficit was met by grants-in-aid from the British Government. Recurrent expenditure amounted in 1965/66 to about 23% of GDP. Much of this expenditure was devoted to administrative and social services; expenditure on the relatively developmental departments — such as agriculture and works — was relatively low. Some 80% of British aid was devoted to meeting the current budgetary deficit; only 20% was devoted to development. Financial control and management were very weak.

Financial policy since independence has been concerned, first, to restrain the growth in recurrent expenditure in order to provide more funds for development and secondly, to provide effective control over expenditure. Thus whereas recurrent expenditure increased by 117 per cent between 1960/61 and 1965/66, it increased by only 7 per cent between 1965/66 and 1970/71 (current estimates). At the same time, revenue has increased substantially, mainly as a result of the successful renegotiation of the Customs Agreement with Botswana, South Africa and Swaziland, but also as a result of efficient revenue

collection. Thus, the current deficit fell from R6.3 million in 1965/66 to an estimated R2.0 million in 1970/71. The development of the recurrent budget over the past quinquennium is shown in Table 16.1.

TABLE 16.1

Recurrent Revenue and Expenditure 1965/66 to 1970/71
R'000

	Local Revenue	Expenditure (b)	Deficit
1965/66	3,954	10,289	6,335
1966/67	4,710	10,383	5,673
1967/68	5,260	10,907	5,646
1968/69	5,653	10,584	4,931
1969/70	9,013	10,829	1,816
1970/71 (a)	9,028	11,042	2,014

(a) Estimates.

(b) Excludes reimbursements

Table 16.2 analyses revenue and expenditure in 1969/70.

TABLE 16.2

Revenue and Expenditure 1969/70

Revenue			Expenditure		
Head	R'000	percent	Head	R'000	percent
Direct Taxes	1,731	19.2	Education	2,244	19.6
Customs and Excise	4,997	55.5	Health and Social Welfare	998	8.7
Of which Revenue under the Customs Agreement	4,739	52.6	Agriculture	970	8.5
Posts and Tele- communications	459	5.1	Works & Communica- tions	828	7.2
Licences and Duties	458	5.1	Post & Telecom- munications	404	3.5
Earnings of Ministries	528	5.9	Police	1,314	11.5
Rents	175	1.9	Justice	373	3.3
Fees of Court or Office	123	1.4	Prisons	321	2.8
Other	542	6.0	Prime Minister	550	4.8
Total	9,013	100	Finance	910	8.0
			Interior	743	6.5
			Foreign Affairs	337	3.0
			National Assembly and Senate	128	1.1
			Public Debt	236	2.1
			Pensions and gratuities	728	6.4
			Other Statutory expenditure	58	0.5
			Other	278	2.4
			Total (a)	11,422	100

(a) Includes reimbursable expenditure.

(The following points are shown by Table 16.2

- (a) On the side of revenue, the very high proportion accounted for by revenue under the Customs Agreement introduced a strong element of inflexibility, since it represented receipts over which Lesotho has virtually no control. This particular source of revenue is also subject to substantial fluctuations for technical reasons.
- (b) On the side of expenditure, 28.3% was accounted for by social service expenditure, and in particular by education which accounted for 19.6% of recurrent expenditure — an amount equivalent to 24.9% of territorial revenue. As is pointed out in Chapter 13.1, this is an element in expenditure for which the returns are very poor.
- (c) The functions of government in the productive and economic infrastructure sectors — i.e. agriculture and works — accounted for only 15.7% of recurrent expenditure. This partly reflected the limited ability of these Ministries to spend funds effectively.
- (d) The deficit on the recurrent budget was still equivalent to 17% of the level of expenditure (excluding reimbursable expenditure); thus over a sixth of recurrent expenditure had to be financed by foreign aid.
- (e) Personal emoluments (including salaries, wages and allowances) accounted for 46% of total expenditure in 1969/70, and grants to Mission and other educational institutions accounted for a further 17.6%. Thus a major element in restraining the growth of expenditure must be a restriction on the growth of personal emoluments and on that of educational grants. As far as personal emoluments are concerned, this implies a firm control over both the numbers of persons employed by government and their level of remuneration.

16.1.2 Financial Policy

The principal aims of financial policy are as follows:—

- (a) To eliminate the budgetary deficit as soon as possible, and at the latest by the end of the Plan period — i.e. by 1975/76. This is essential both in order to free Lesotho from dependence on Britain for budgetary assistance and in order to use the budget eventually as an instrument for mobilising local savings for development. The attainment of this goal will depend on Government's success in raising more revenue, in continuing restraint on the growth of recurrent expenditure and in reducing

the proportion of the national income devoted to the recurrent budget.

- (b) To reshape the tax system so as to make it more progressive.
- (c) To readjust the pattern of recurrent expenditure so as to increase the relative importance of the more developmental activities of government, and *per contra* to reduce the relative importance of administrative overheads in total expenditure.
- (d) To improve the cost effectiveness of government expenditure—through, for example, obtaining better value for the money spent on education, agriculture and other services and improving the efficiency of government activity.

16.1.3 Programme for the Quinquennium Revenue

Further efforts will be made both to improve the efficiency of collection of existing sources of revenue and to tap new sources. The following specific sources of additional revenue are now under consideration:—

Rates The Local Administration Act provides for powers to levy rates. A valuation of property in Maseru is to be carried out shortly and it is planned to introduce rates—initially on a low level—in 1971. Revenue from rates is expected to increase from about R50,000 in 1971/72 to over R100,000 by the end of the Plan period. By 1975/76 it is planned to finance all urban services in Maseru from rates. Rates will be levied in other urban areas as soon as this is practicable.

Land Rents Legislation will be introduced to permit the levying of ground rents for land in urban areas. At present valuable commercial sites are occupied free of charge. This not only involves a loss of possible revenue to government; it also makes for an inefficient use of urban land since the occupation of land in unproductive ways involves no cost to the occupier.

Direct Taxation Proposals for increasing yields from direct taxation and making the system more progressive are under consideration. PAYE will be introduced for all employees in 1972.

Customs Duties Customs posts will be established at all entry points, and import statistics will be collected. Since Lesotho's share of customs revenue under the Customs Agreement with Botswana, South Africa and Swaziland will depend on the level of her imports, this will ensure that Lesotho obtains her fair part of the total.

Export Duties The establishment of organised marketing for agricultural produce will enable Government to levy reasonable export duties from this sector.

Housing Subsidies As is stated in Chapter 13.4, it is Government's intention to consider the reduction and eventual elimination of subsidies on civil servants' housing. This would in the first instance increase revenue from rents; in the longer run it is hoped that government will be able to dispose of part of its stock of houses, and revenue from rents will fall correspondingly. This will be matched by a drop in expenditure on maintenance.

Road Taxes Consideration is being given to means of increasing taxes on road users, so that some part of the benefit accruing from road investment should accrue directly to government revenues.

Fees for Licences and Government Services The level of fees of all kinds will be considered with a view to increasing revenue. Efforts will be made to improve the efficiency with which existing fees are collected.

Expenditure

A major re-examination of the pattern of government expenditure will be carried out in 1971, and projections of expenditure for individual ministries and departments will be made in accordance with the policy of increasing the relative importance of expenditure on the developmental activities of government. These projections will be made within an overall increase of $2\frac{1}{2}\%$ per annum in recurrent expenditure — a rate substantially lower than that of the anticipated increase of 5% per annum in GNP, and one which will involve a reduction of the share of recurrent Government spending in GNP. This $2\frac{1}{2}\%$ increase will accommodate the recurrent expenditure arising from projects in the plan. The following specific measures will be taken to contain the growth of recurrent expenditures:—

- (a) Salaries will be frozen at their present level. Special allowances will be paid if necessary to attract particular skilled personnel. The system of increments will be reviewed so as to make them more dependent on qualifications and performance.
- (b) New posts will be created only where they are needed to meet the purposes of the Development Plan. Many of the proposals in the Plan — especially in the fields of education and agriculture — should improve the cost effectiveness of Government spending, but a constant watch will be maintained on this requirement in all sectors of Government expenditure.

16.1.4 Budgetary Projections

Table 16.3 gives a very approximate projection of recurrent revenue and expenditure over the period of the Plan. It is based on the following assumptions:—

- (a) It is expected that the GNP will increase by a minimum of 5% per annum; Government revenue should increase by more than this. Although there are some relatively inflexible elements in revenue (e.g. company tax, where the granting of pioneer tax concessions leads to substantial delays in revenue increases from the industrial and tourist sectors) other sources of revenue will probably increase at considerably more than 5% per annum. Customs Duty receipts in particular will benefit both from improved recording of imports and from the growth in imports associated with development projects — in particular the Malibamatso Water Project. Overall a rate of increase of 6% per annum, exclusive of revenue from new taxes and other additional sources, appears reasonable.
- (b) Revenue raised from new sources rises from R43,000 in 1971/72 to R494,000 in 1972/73, R663,000 in 1973/74 and R852,000 in 1974/75.
- (c) Expenditure increases at 2½% per annum (see above).

TABLE 16.3

Revenue and Expenditure Projections

Year	Revenue	Expenditure			R'000
		Generated by Plan	Other	Total	Deficit
1970/71	9,028	263	10,779	11,042	2,014
1971/72	9,600	613	10,707	11,320	1,720
1972/73	10,630	762	10,838	11,600	970
1973/74	11,410	914	10,976	11,890	480
1974/75	12,250	1,050	11,140	12,190	60*

*Surplus

The projections in Table 16.3 show the budget roughly in balance in 1974/75. Even if allowance is made for any over-optimism in the assumptions on which they are based, the elimination of the budgetary deficit by the end of the plan period would appear to be a completely practicable target.

Table 16.4 which is based on Table 16.3, shows the annual increases in expenditure over the period, distinguishing between expenditure generated by the plan and other expenditure.

TABLE 16.4
Annual Increases in Expenditure

			R'000
	Expenditure generated by Plan	Other Expenditure	Total Expenditure
1970/71 to 1971/72	350	—72	278
1971/72 to 1972/73	149	131	280
1972/73 to 1973/74	152	138	290
1973/74 to 1974/75	136	164	300
Total 1970/71 to 1974/75	787	361	1,148

Table 16.4 shows that, over the period, a 2½% per annum increase in expenditure can accommodate both the recurrent expenditure generated by the plan and a modest increase in other expenditure. These projections also suggest the limits within which the reshaping of public expenditure will be carried out.

Tables 16.3 and 16.4 show the probable trend over the period; they do not indicate the budgetary situation in any particular year. This may be subject to particular short-term influences, such as variations in receipts under the Customs Agreement for short-term, technical reasons, or any under spending there may be by individual ministries. Thus, the fall in permitted "other expenditure" in 1971/72 shown in Table 16.4 is subject to assumptions about the rate of development spending in the period which may prove to be optimistic.

16.1.5 Financial Administration

In the past, financial administration in Lesotho was notoriously weak. There was little overall financial policy; control over expenditure was lax; revenue collection was patchy. There has been substantial improvement in all these fields over the past quinquennium, and it is intended that the present plan will provide a firm framework for financial policy over the plan period. The following specific measures have been taken to improve control over expenditure and revenue collection:—

- (a) The Accountant General has been instructed not to pass for payment any voucher which could result in over-expenditure.
- (b) The Minister of Finance will apply his powers of surcharge strictly where unauthorised expenditure is incurred.
- (c) An O & M Survey of the Treasury and Audit staff has been completed, and the staffing requirements are provided for in the 1970/71 Estimates.
- (d) An Audit/Training Officer with executive duties under the Accountant General has been recruited under U.K. Technical Assistance.

16.2. DEVELOPMENT FINANCE

16.2.1. Total estimated expenditure under the Plan is R28.8 million for the period 1970/71 to 1974/75. This excludes:

- (a) recurrent expenditure falling on the budget;
- (b) the food element in food aid projects;
- (c) private sector investment;
- (d) expenditure on the Malibamatšo River Project during the period. This is considered separately below;
- (e) investment by LNDC of its own funds.

The following are the main sources of finance which are either expected or hoped for:—

(a) *Local sources*

It is not expected that savings will be effected through the recurrent budget over the plan period. Consideration is, however, being given to the issuing of development bonds, and the Development Bank will seek other methods of mobilising local savings. In all, it is expected that R0.5 million will be raised over the period.

(b) Official Bilateral Aid

The principal source of external aid in the past has been the British Government, and it is expected that this situation will continue over the plan period, although the Lesotho Government will make every effort to finance parts of the programme from other sources. In December 1969, the British Government offered R2.57 million per annum in aid for the three year period 1970/71 to 1972/73. Later the aid offered for 1970/71 was reduced to R1.7 million, and a revised offer is awaited for the following two years. It is assumed for purposes of estimation that the level of British aid for these two years will be R2.5 million per annum. On this assumption, British aid should be R6.7 million. Other potential donor governments, and in particular Canada, South Africa, Sweden and the United States, will also be asked to finance particular projects, and it is hoped that R2.5 million will be obtained over the period from them.

(c) Multilateral Aid

These include the UNDP, which has already committed R820,000 towards the cost of the Leribe Integrated Agricultural Project, and which it is hoped will provide R365,000 towards the proposed Mineral Survey; IDA, FFHC, UNICEF and other organisations. No firm information is available on the total level of aid to be obtained from these sources, but it is assumed that this might amount to R6 million over the plan period.

(d) Voluntary Agencies

Lesotho has been the recipient of help from a number of voluntary agencies in the past. These have included Oxfam, the Christian Aid Fund, CARE and others. The future level of assistance from these sources is not known, but it could be expected to total R0.5 million over the plan period. Not all of this, however, may be towards projects included in the Development Plan.

(e) Commercial Loans

Certain elements in the plan are commercially viable. These include expenditure on electricity, part of the water and telecommunications programmes, factory building, some agricultural marketing projects and that part of the Development Bank's finance which is not covered by equity capital. In all, these might total over R3 million. It has been estimated above that R0.5 million of this might be raised from local sources; this

leaves some R2.5 million to be raised from other sources. Some part of this might be financed by the proceeds of S.D.R.'s

The total level of financial resources assumed for the Plan is therefore as follows:

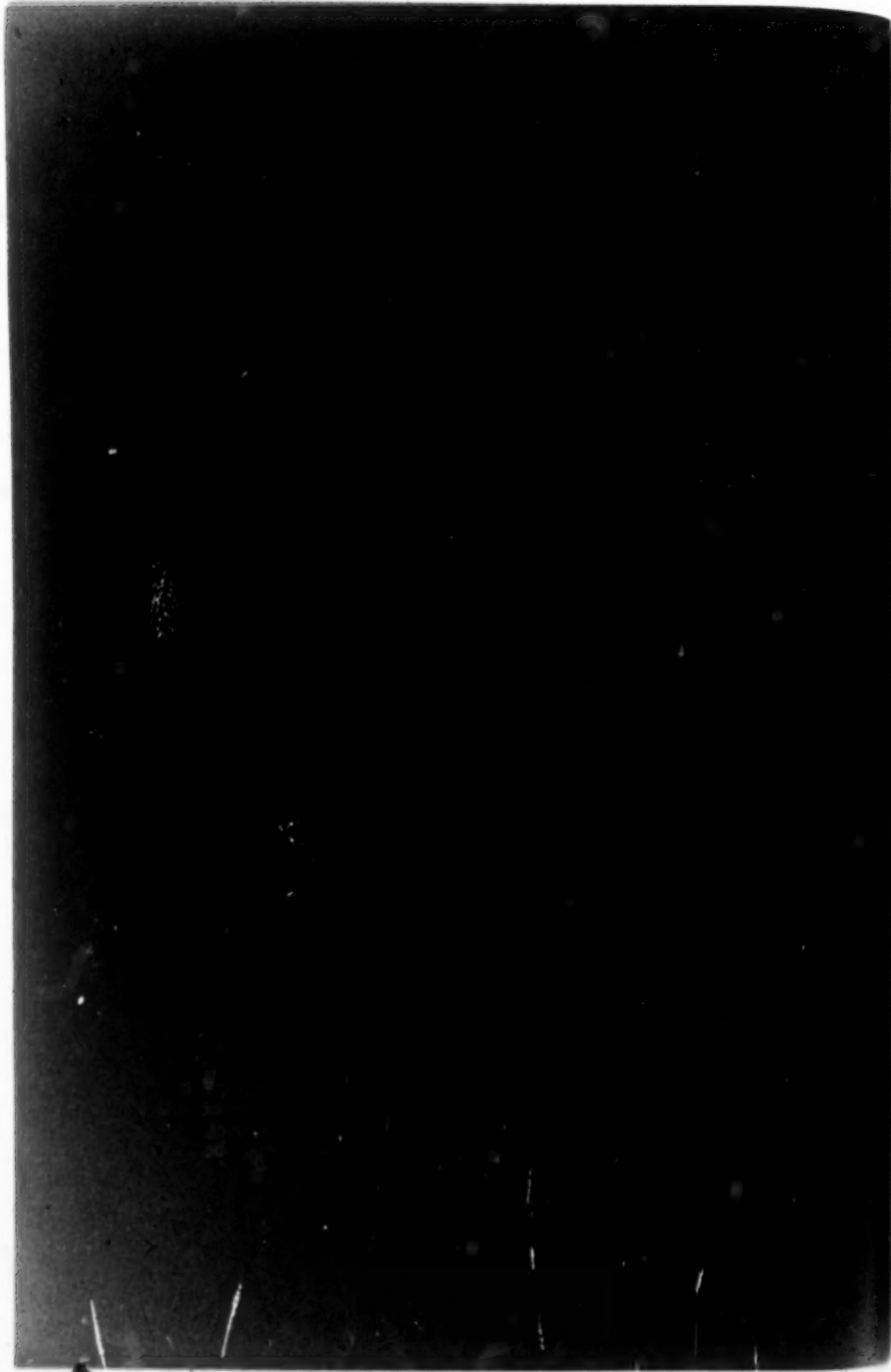
TABLE 16.5
Estimated Financial Resources for Plan

	R million
Local	0.5
Official Bilateral Aid	
U.K.	6.7
Other	3.0
Multilateral Aid	6.0
Voluntary Agencies	0.5
Other	2.5
Total	19.2

16.2.2. Much of this picture of financial resources is hypothetical. In particular the availability of aid will depend on the existence of well-prepared, sound projects which aid donors can reasonably be expected to support. The Central Planning and Development Office will have the responsibility for co-ordinating both the initiation and preparation of development projects within the framework of the Plan, and the approaches to be made to the various potential donor countries and agencies for assistance.

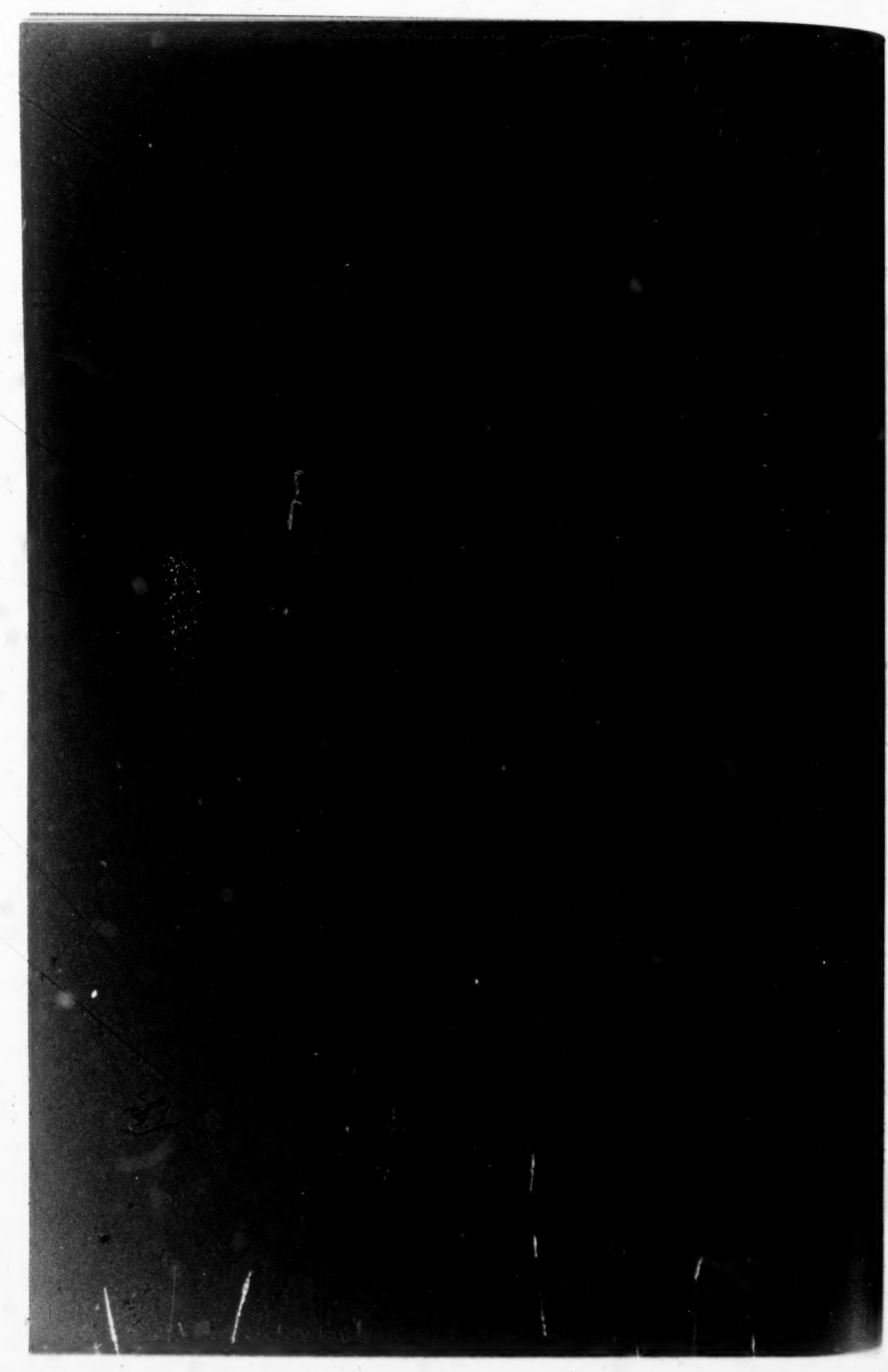
Thus, towards a programme of R28.8 million, finance of the order of R19.2 million might not unreasonably be expected to be available. This leaves a fairly manageable gap of R9.6 million. The modest size of the gap reflects the modest scale of the programme. This has been determined by the present limited capacity of the Lesotho administration to formulate and implement projects, and the present limited absorptive capacity of the Lesotho economy for productive investment. Over the course of the period it is hoped that both these constraints will be relieved, and that in the last two years at least of the period it will be possible to expand the programme accordingly. This will necessarily increase the financing gap in the programme.

16.2.3 There are no firm estimates yet for expenditure over the period on the Malibamatso River Project, but the Consultants' Interim Report suggests that, in the period up to April 1975, expenditure would be some R19 million (excluding interest charges) or about R25 million (including interest charges.) When a decision is taken to go ahead with the project, possible sources of finance such as the IBRD/IDA will be approached.



PART III

APPENTICES



APPENDIX I

National Development Plan: Main Policy Measures and Institutional Reforms

Number	Description	Reference (Section in the Plan)	Responsibility
1	(a) Establishment of a committee on localization in the civil service under the Prime Minister	4.10	Cabinet and CPDO
	(b) Establishment of a committee on localization in the private sector under the Prime Minister	4.10	Cabinet and CPDO
2	Establishment of National Planning Consultative Council	5.4	Cabinet
3	Implementation of the Government's decision to establish Programming Units in all Ministries	5.5	Cabinet, Ministries and CPDO
4	Establishment of Project Review Committees in all Ministries	5.6	Cabinet, CPDO and Ministries
5	Strengthening regional planning through establishment of District Consultative Committees and the appointment of Development Secretaries	5.8	Cabinet and CPDO

Number	Description	Reference (Section in the Plan)	Responsibility
6	(a) Strengthening the Bureau of Statistics through office extension, increase of staff, field personnel and more equipment.	5.9	Ministry of Finance (Bureau of Statistics)
	(b) Consultation with the Governments of Botswana and Swaziland to establish a Department of Statistics at U.B.L.S.	5.9	Bureau of Statistic and CPDO
	(c) Drawing up a priority program of work for the Bureau of Statistics	5.9	Bureau of Statistics and CPDO
7	Formulation of a program of Research on Social and Economic Development Problems and Planning	5.10	CPDO
8	Preparation of a plan of action determining sources of Development Financing, kinds of financial assistance required and ways of obtaining it	6.6	CPDO
9	Formulation of a Technical Assistance Program for the period 1971/72 to 1972/73	6.6	CPDO
10	Investigations on land use planning, ecological zones, resources capabilities, etc.	7.1.3 7.2.2 7.3.3	Ministry of Agriculture

Number	Description	Reference (Section in the Plan)	Responsibility
11	Formulation of a program for the increased use of fertilizers	7.1.4	Ministry of Agriculture
12	Strengthening Maseru Experiment Station (greenhouse, cold storage and better equipment).	7.1.5.E	Ministry of Agriculture
13	Establishment of Crop Research Stations in Leribe and Mohale's Hoek	7.1.5.E	"
14	Expansion of Lema Tractor Fleet	7.1.6	"
15	(a) Preparation of detailed project studies for irrigation farming	7.1.7.B	"
	(b) Establishment of Irrigation Research station in Leribe	7.1.7.C	"
	(c) Establishment of Irrigation Research station in Tšakholo	7.1.7.D	"
	(d) Survey on the utilization of water from existing dams	7.1.7.E	Ministry of Agriculture
	(e) Establishment of the Irrigation Research Unit	7.1.7.G	Ministry of Agriculture
16	Co-ordination of conservation activities with agricultural productive activities	7.9.8	"
17	Formulation of a detailed program for gradual de-stocking and improvement of production and quality in the live-stock sector	7.2.1	Ministry of Agriculture

Number	Description	Reference (Section in the Plan)	Responsibility
18	(a) Establishment of an additional Sheep Stud	7.2.3	Ministry of Agriculture
	(b) Establishment of an Angora Goat Stud	7.2.4	"
	(c) Establishment of two Cattle Breeding stations	7.2.5	"
19	Application of a grazing control program for the Oxbow Catchment Area	7.2.9	"
20	(a) Reconstruction and improvement of Sheep Dipping Tanks	7.2.10	"
	(b) Implementation of the findings of Helminthiasis Research project	7.2.10	"
	(c) Implementation of the findings of the research on liver-fluke disease	7.2.10	"
	(d) Reorganization and conversion of the veterinary laboratory into a proper Veterinary Investigation Centre	7.2.10	"
21	Strengthening of the network of Livestock Improvement Centres	7.2.11	Ministry of Agriculture
22	Reconstruction and improvement of woolsheds and sheep centres	7.2.12	Ministry of Agriculture

Number	Description	Reference (Section in the Plan)	Responsibility
23	Establishment of Livestock Marketing Corporation	7.2.13	Ministry of Agriculture
24	Construction of Maseru Abattoir and slaughter houses in the Districts	7.2.14	Maseru Township and Ministry of Agriculture
25	Feasibility studies for tannery, pullery and wool washing plant	7.2.14	LNDC Ministry of Agriculture
26	Livestock production survey	7.2.15	Bureau of Statistics and Ministry of Agriculture
27	Review of the effectiveness, organization, methods and program of the Agricultural Extension Services	7.3.4	"
28	Establishment of a Farmer Training Centre at Mokhotlong	7.3.7	"
29	Introduction of courses on Agricultural Economics, Marketing and Co-operatives in the Lesotho Agricultural College	7.3	"
30	Co-ordination of Nutritional Policies through the appointment of an Executive Officer in the Permanent Bureau of Nutrition	7.3.10	Cabinet (Personnel and Ministry of Agriculture
31	Assessment of the country's nutritional situation by requesting a WHO/FAO Survey Mission	7.3.10	Ministry of Agriculture and Department of Health

Number	Description	Reference (Section in the Plan)	Responsibility
32	(a) Revision of legislation on Co-operatives	7.4.3	Ministry of Agriculture
	(b) Strengthening the Department of Co-operatives	7.4.3	"
	(c) Preparation of a program for educating people in the principles and methods of co-operatives	7.4.3	"
	(d) Identification of new areas for co-operative activity	7.4.3	"
	(e) Encouragement and assistance of semi-co-operative organizations to become fully registered co-operative societies	7.4.3	"
	(f) Formation of a National Co-operative Council	7.4.5	"
33	Integration of the sections of Community Development, Co-operatives, Marketing, Farmers' Training Centres, Young Farmers Clubs, Youth Services and Home Economics and Nutrition into a single Division in the Ministry of Agriculture	7.4.6	"

Number	Description	Reference (Section in the Plan)	Responsibility
34	Linking pioneer industries concessions with a specific training and localization programme	8.1.2	Department of Commerce and Industry
35	Strengthening the Department of Commerce and Industry	8.1.2	Ministry of Finance
36	Provision of facilities for craftsmen at district markets	8.1.2	Department of Commerce and Industry
37	Drawing up a programme of expansion of VIDO	8.1.2	VIDO and Ministry of Finance
38	Development of Industrial Sites at Maseru and Ficksburg Bridge	8.1.2	LNDC/Government
39	Formulation of a programme for improving trading facilities including shopping centres	8.2.2	LNDC and Department of Commerce and Industry
40	Revision of trading legislation to make it more developmental and reduce monopolistic elements	8.2.2	Department of Commerce and Industry
41	Strengthening Business Extension Service	8.2.2	"
42	Promotion and encouragement of the Co-operative Bulk Bying Syndicates	8.2.2	Departments of Commerce and Industry

Number	Description	Reference (Section in the Plan)	Responsibility
43	(a) Improvement and upgrading of existing hotels in the Districts	9.2	Department of Tourism
	(b) Preparation and launching of a tourist publicity program	9.2, 9.5	LNDC Department of Tourism
	(c) Strengthening the Department of Tourism	9.2, 9.6	Cabinet
44	Selection of areas to be prospected	10.2	Department of Mines and LNDC
45	Financial support for diamond diggers	10.2	Department of Mines
46	Survey of mineral resources	10.3	"
47	Establishment of the Water Resources Authority	11.2	Cabinet, Works, CPDO
48	Co-ordination of Food Aid Programme with Works	12.1.5	Ministry of Works and Food Aid Office
49	Working out a programme for strengthening the construction capacity of the Ministry of Works and investigating alternative solutions	12	Cabinet, Works, CPDO
50	Setting up a Plant Pool within the Ministry of Works	12.5	Cabinet and Ministry of Works
51	Strengthening the teaching of science and mathematics in secondary schools	13.1.9	Department of Education

Number	Description	(Reference (Section in the Plan)	Responsibility
52	Introduction of bonding and use of scholarships as a means of channelling individuals to fields required for development	13.1.3	Department of Education
53	Investigation of the possibility of applying uniform fees in primary schools	13.1.4	"
54	Provision of equipment and teaching aids for primary schools	13.1.4	"
55	Establishment of the Curriculum Development Centre at U.B.L.S.	13.1.4	"
56	Establishment of a single Teacher Training College in replacement of existing Teacher Training Colleges	13.1.5	"
57	Recruitment of Science/Mathematics Teachers for selected secondary schools	13.1.6	"
58	Formulation of a programme for staff training and localization of the academic and administrative personnel of U.B.L.S. in consultation with the Governments of Botswana and Swaziland and the University	13.1.10	"

Number	Description	Reference (Section in the Plan)	Responsibility
59	Expansion of the School of Education at U.B.L.S.	13.1.10	Department of Education
60	Manpower survey to determine requirements for implementing development proposals in the 5-year plan	13.1.8	CPDO and Department of Education
61	Developing L.A.T.C. into a Technical Institute	13.1.8	"
62	Strengthening educational planning	13.1.11	Department of Education
63	Preparation of a Career Guide Book for secondary students	13.1.8	Department of Education and CPDO
64	Encouragement and financing of ethnological and historical research on Lesotho and its people; request for supplementary assistance from UNESCO	13.1.9	CPDO and Department of Education
65	Recruitment of at least fifteen general duty doctors and six specialists	13.2.2	Department of Health
66	Organization of refresher courses and clinical meetings	13.2.2	"
67	Provision of orientation training for medical officers, nurses and health assistants	13.2.2	"

Number	Description	Reference (Section in the Plan)	Responsibility
68	Delegation to medical officers of administrative authority and budgetary responsibility for health services in their areas	13.2.2	Department of Health
69	Request of technical assistance to sponsor scholarships for medical students	13.2.2	CPDO Departments of Health and Education
70	Establishment of a departmental committee on supply of drugs, medical equipment and diagnostic aids	13.2.3	"
71	Establishment of a laboratory for haematology, bacteriology, biochemistry and histology tests	13.2.4	"
72	Establishment of a maternity wing at Queen Elizabeth II Hospital	13.2.4	"
73	Co-ordination at district level of all health personnel	13.2.4	"
74	Construction of nine health centres in the Districts	13.2.4	"
75	Review and improvement of present courses in the Nursing Schools	13.2.5	"
76	Formation of a Consultative Committee on Nursing Training	13.2.5	"

Number	Description	Reference (Section in the Plan)	Responsibility
77	Establishment of a Training Institute for medical officers public health nurses and health assistants	13.2.7	CPDO Departments of Health and Education
78	Preparation of a manual for guidance of health inspectors and assistants	13.2.7	"
79	Survey of sanitation needs in the main urban centres	13.3.2	Ministry of Works
80	Introduction of transferable leasehold	13.4	Ministry of Interior and Law Office
81	Establishment of a Housing Corporation	13.4	Ministry of Interior and LNDG
82	Gradual termination of rent subsidies for civil servants	13.4	Cabinet
83	Strengthening Town Planning Department	13.4	Ministry of Interior
84	Drawing up a detailed programme for sporting facilities in the main urban centres	13.5	Department of Education and Lesotho Sports Council
85	Introduction of non-custodial means of treatment of offenders	14.2	Cabinet, Ministry of Justice and Department of Prisons
86	Establishment of a Development Bank	15.2.3	Ministry of Finance
87	Reshaping the tax system to make it more progressive	16.1	Ministry of Finance

Number	Description	Reference (Section in the Plan)	Responsibility
88	Introduction of local rates	16.1	Ministries of Interior and Finance
89	Introduction of legislation for urban land rents	16.1	Ministries of Interior and Finance
90	Extension of P.A.Y.E. (Pay as you earn) tax to the private sector	16.1	Ministry of Finance
91	Establishment of customs posts for improving import statistics	16.1	Cabinet and Ministry of Finance
92	Review of structure and levels of fees paid for Government services including licences	16.1	Cabinet and Ministry of Finance
93	Reshaping the structure of Government recurrent expenditure to make it more development oriented	16.1	Ministry of Finance, Cabinet & CPDO
94	Introduction of allowances to attract special skills	16.1	Cabinet (Personnel) and Ministry of Finance
95	Special increments to be provided for qualifications and performance	16.1	Cabinet (Personnel) and Ministry of Finance

APPENDIX II: STATISTICS AND MAPS

TABLE 1

De Jure Population by residential status, by sex, by district (all races)

District	Present			Absent			Total		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
Butha-Buthe	23,626	30,990	54,616	6,730	1,833	8,563	30,356	32,823	63,179
Leribe	59,806	79,014	138,820	18,120	4,553	22,673	77,926	83,567	161,493
Berea	41,971	57,754	99,725	14,436	4,087	18,523	56,407	61,841	118,248
Maseru	80,364	101,974	182,338	17,211	2,283	19,494	97,575	104,257	201,832
Mafeteng	43,931	58,802	102,733	13,641	2,713	16,354	57,572	61,515	119,087
Mohale's Hoek	40,973	55,759	96,732	11,481	1,714	13,195	52,454	57,473	109,927
Quthing	28,118	37,308	65,426	6,385	935	7,320	34,503	38,243	72,746
Qacha's Nek	24,698	31,814	56,512	5,381	1,062	6,443	30,079	32,876	62,955
Mokhotlong	24,768	30,691	55,459	4,144	564	4,708	28,912	31,255	60,167
Lesotho	368,255	484,106	852,361	97,529	19,744	117,273	465,784	503,850	969,634

Source — 1966 Statistical Census.

TABLE 2
De Facto Population by race, by sex, by 5 years groups

Age Group	African			European			Asian			Total		
	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total
00-04	60429	61582	122011	70	66	136	51	61	112	60550	61709	122259
05-09	63227	62657	125884	62	62	124	63	62	125	63352	62781	126133
10-14	61062	60781	121843	33	36	69	42	44	86	61137	60861	121998
15-19	39788	48544	88332	14	28	42	29	30	59	3983	48602	88433
20-24	16451	37237	53688	52	35	87	23	29	52	16524	37301	53827
25-29	14254	31404	45658	65	53	118	19	35	54	14338	31492	45830
30-34	15187	31200	46387	71	69	140	31	30	61	15289	31299	46588
35-39	14049	23711	37760	83	70	153	26	19	45	14158	23800	37958
40-44	13044	20349	33393	77	73	150	16	13	29	13137	20435	33572
45-49	17274	23416	40690	97	68	165	17	15	32	17388	23499	40887
50-54	13430	19409	32839	57	78	135	12	15	27	13499	19502	33001
55-59	10342	13480	23822	51	61	112	9	17	26	10402	13558	23960
60-64	8164	12061	20225	32	46	78	7	10	17	8203	12117	20320
65-69	9586	15877	25463	16	18	34	6	9	15	9608	15904	25512
70-74	3960	8072	12032	11	10	21	7	3	10	3978	8035	12063
75-79	2168	3894	6062	5	4	9	3	1	4	2176	3899	6075
80-84	1179	2435	3614	2	1	3	3	—	3	1184	2436	3620
85-89	1624	3779	5403	2	—	2	—	3	3	1624	3782	5408
90-94	271	778	1049	—	1	1	—	—	—	271	779	1050
95 & Over	227	632	859	—	—	—	—	1	1	227	633	860
Not Stated	1371	1628	2999	1	2	3	3	2	5	1375	1632	3007
Total	367087	482926	850013	801	781	1582	367	399	766	368255	484106	852361

Source:— 1966 Statistical Census

TABLE 3**Projection of de jure population**

Year	Male	Female	Total
1967	492,949	509,531	1,002,480
1968	500,749	517,386	1,018,133
1969	508,954	525,674	1,034,628
1970	517,579	534,380	1,051,959
1971	526,642	543,517	1,070,159
1972	536,160	553,106	1,089,266
1973	546,151	563,164	1,109,315
1974	556,644	573,711	1,130,355
1975	567,636	584,768	1,152,404
1976	579,176	596,353	1,175,529

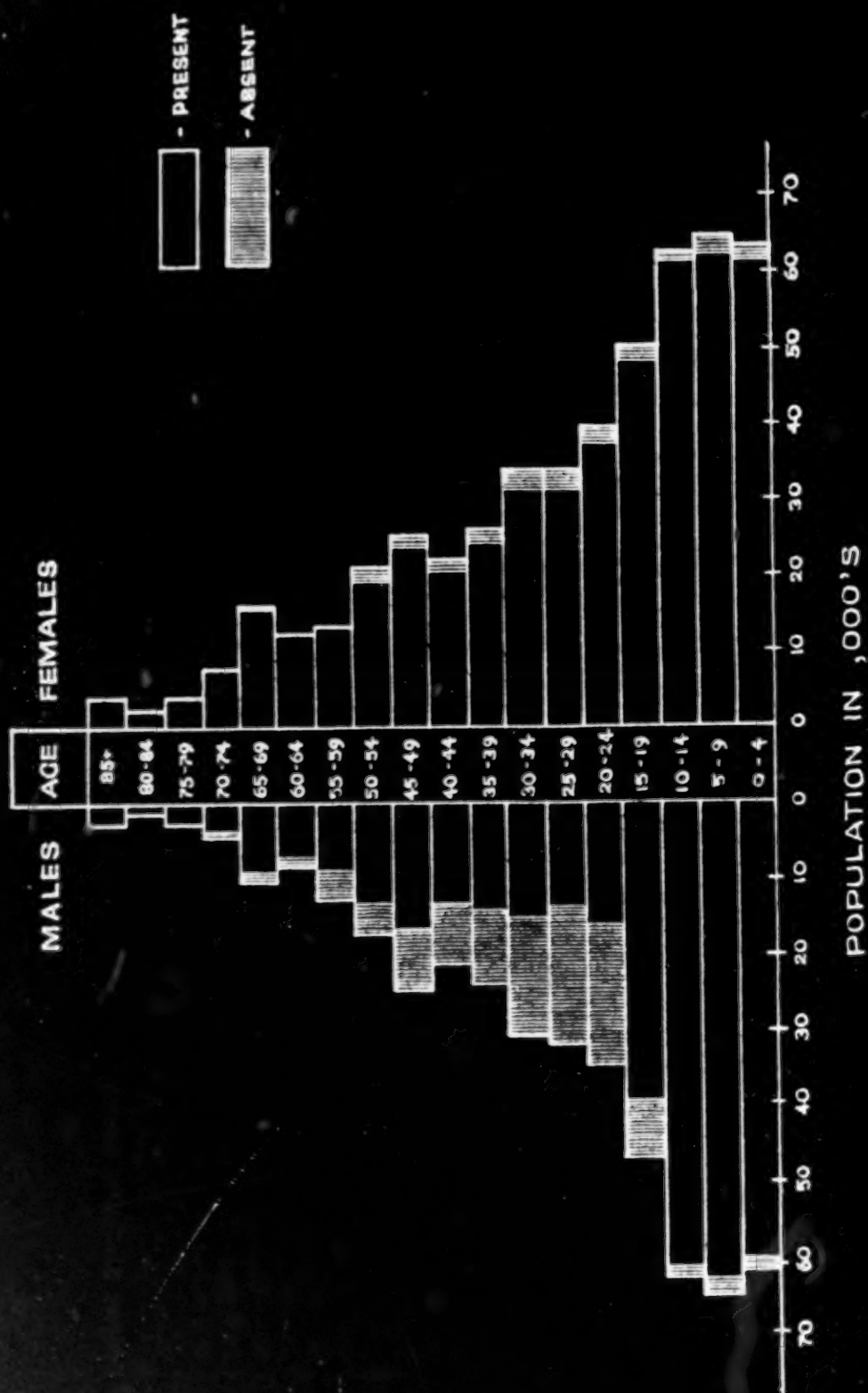
Source: Bureau of Statistics

TABLE 4

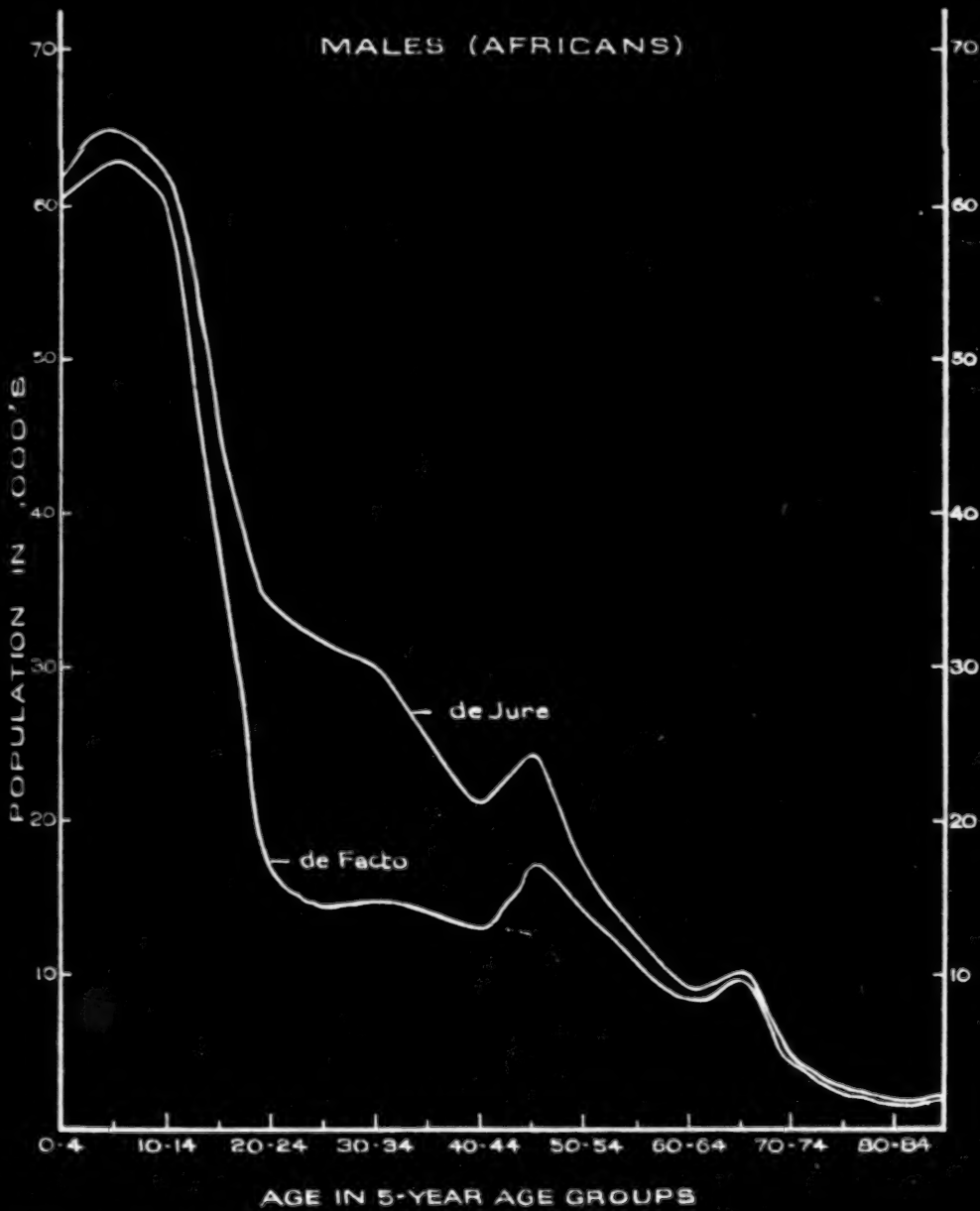
Absentee population by employment status, by sex, by 5 year age groups

Age	At school		Self employed		Employed		Family worker		Other		Total	
	Male	Fem.	Male	Fem.	Male	Fem.	Male	Fem.	Male	Fem.	Male	Female Total
00-04	—	—	—	—	—	—	—	—	1545	1632	1545	1632 3177
05-09	341	428	—	—	48	—	84	69	971	1008	1444	1505 2949
10-14	601	787	—	—	275	51	92	33	378	349	1346	1225 2571
15-19	345	358	18	12	6191	372	122	154	240	363	6916	1260 8176
20-24	117	50	87	34	17446	1148	211	349	224	409	18085	1890 20075
25-29	—	—	163	39	17272	1639	144	325	189	376	17768	2379 20147
30-34	—	—	155	51	15049	2102	115	276	153	341	15472	2770 18242
35-39	—	—	136	61	11059	1548	84	184	86	212	11365	2005 13370
40-44	—	—	109	37	7683	1195	48	134	62	136	7902	1502 9404
45-49	—	—	134	35	6974	1113	44	123	56	113	7208	1384 8592
50-54	—	—	95	31	3403	550	30	65	36	63	3564	709 4273
55-59	—	—	67	9	1723	266	19	48	31	43	1840	366 2206
60-64	—	—	39	12	810	124	13	26	20	36	882	198 1080
65-69	—	—	53	24	540	96	12	37	7	29	612	186 798
70-74	—	—	22	12	134	30	6	12	11	25	173	79 252
75-79	—	—	7	1	60	10	3	5	5	9	75	25 100
80-84	—	—	4	1	19	5	—	1	2	9	25	16 41
85-89	—	—	2	—	16	3	1	6	5	17	24	26 50
90-94	—	—	—	1	3	—	—	1	2	4	5	6 11
95 & over	—	—	—	—	2	—	—	—	1	3	3	3 6
Not stated	—	—	21	16	1163	277	10	42	81	143	1275	478 1753
Total	1404	1623	1112	376	89870	10530	1038	1895	4105	5320	97529	19744 117273

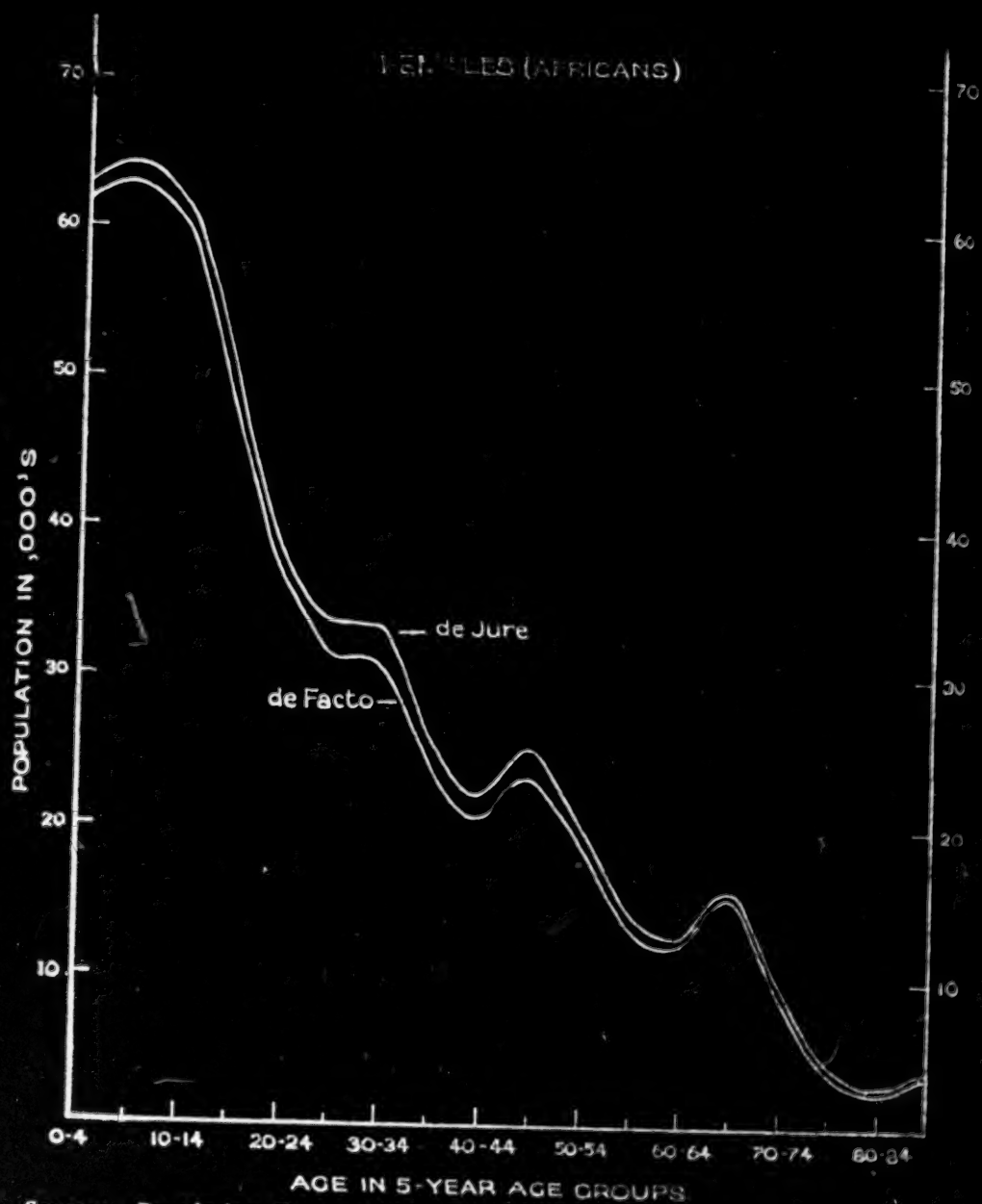
Source: Statistical Census



Source: Population Census 1966



Source: *Population Census 1966*



Source: Population Census 1966

TABLE 5

Recruiting of Basotho on Gold Mines and Collieries 1967 and 1968

Month	Number Recruited		Number in Employment		Voluntary Deferred Pay		Remittance Payments	
	1967	1968	1967	1968	1967	1968	1967	1968
January	11,314	12,542	86,185	79,193	Rand 67,279	Rand 69,605	Rand 82,126	Rand 83,752
February	7,504	8,005	84,474	82,795	73,334	76,156	84,121	90,046
March	6,140	5,360	83,594	81,653	81,865	66,434	89,256	71,158
April	4,697	5,097	82,479	84,123	76,018	72,671	84,470	75,932
May	4,856	4,880	80,502	83,353	91,018	65,345	88,011	76,310
June	4,326	5,059	77,753	81,028	92,366	68,023	82,398	68,617
July	4,902	6,055	75,504	82,462	96,774	76,867	78,406	82,904
August	6,293	5,971	73,741	78,279	108,384	105,163	93,133	102,389
September	5,791	6,831	72,131	76,957	115,600	119,754	82,703	101,474
October	6,895	6,935	71,043	78,453	117,303	114,432	90,733	123,837
November	7,190	7,668	70,846	77,564	106,751	99,696	97,700	122,508
December	5,423	6,309	70,716	77,856	96,677	106,952	86,558	101,860
TOTAL	75,331	80,712	77,414*	80,310*	1123,369	1041,098	1039,615	1100,787

* Indicates average rather than total

Source: Labour Department

TABLE 6

The Total Earning and Remittances of Lesotho Workers in the Republic
of South Africa, 1954/55 to 1965/66 (R1,000)

		1954/55	1955/56	1956/57	1957/58	1958/59	1959/60	1960/61	1961/62	1962/63	1963/64	1964/65	1965/66
Earning in S.A.													
1. Mines													
Cash		5,468	6,504	7,182	7,296	8,175	9,552	9,878	10,073	10,423	11,460	12,213	13,859
Kind		4,849	5,774	6,356	6,462	7,235	8,461	8,715	8,903	9,244	10,115	10,827	10,385
Total		10,317	12,278	13,538	13,758	15,410	18,013	18,593	18,976	19,667	21,575	23,040	24,244
2. Agriculture													
Cash		2,084	2,444	2,971	3,323	3,654	3,944	4,001	4,310	4,573	4,805	4,914	5,488
Kind		1,057	1,241	1,508	1,687	1,855	2,003	2,031	2,188	2,322	2,439	2,495	2,786
Total		3,141	3,685	4,479	5,010	5,509	5,947	6,032	6,498	6,895	7,244	7,409	8,274
3. Other industries													
Cash		3,837	4,651	5,041	5,196	5,991	7,167	7,392	7,769	9,294	8,734	10,832	10,082
Kind		150	185	200	202	226	274	281	287	344	280	434	467
Total		3,987	4,836	5,241	5,398	6,217	7,441	7,673	8,056	9,638	9,014	11,266	10,549
4. Total													
Cash		11,389	13,599	15,194	15,815	17,820	20,663	21,271	22,152	24,290	24,999	27,959	29,429
Kind		6,056	7,200	8,064	8,351	9,316	10,738	11,027	11,378	11,910	12,834	13,756	13,638
Total		17,445	20,799	23,258	24,166	27,136	31,401	32,298	33,530	36,200	37,833	41,715	43,067
Amount sent or taken back													
1. Mines													
Cash		1,640	1,951	2,155	2,189	2,453	2,866	2,963	3,022	3,127	3,438	3,664	4,158
Kind		547	650	718	730	818	955	988	1,007	1,042	1,146	1,221	1,386
Total		2,187	2,601	2,873	2,919	3,271	3,821	3,951	4,029	4,169	4,584	4,885	5,544

TABLE 6 (Continued)

	1954/55	1955/56	1956/57	1957/58	1958/59	1959/60	1960/61	1961/62	1962/63	1963/64	1964/65	1965/66
2. Agriculture												
Cash	321	376	458	512	563	607	616	664	704	740	756	846
Kind	161	188	229	256	282	304	308	332	352	370	378	422
Total	482	564	687	768	845	911	924	996	1,056	1,110	1,134	1,268
3. Other industries												
Cash	345	419	454	468	539	645	665	699	836	786	975	918
Kind	115	140	151	156	180	215	222	233	279	262	325	306
Total	460	559	605	624	719	860	887	932	1,115	1,048	1,300	1,224
4. Total												
Cash	2,306	2,746	3,067	3,169	3,555	4,118	4,244	4,385	4,667	4,964	5,395	5,922
Kind	823	978	1,098	1,142	1,280	1,474	1,518	1,572	1,673	1,778	1,924	2,114
Total	3,129	3,724	4,165	4,311	4,835	5,592	5,762	5,957	6,340	6,742	7,319	8,036

Source: Africa Institute, Pretoria.

TABLE 7
Average maximum and minimum rainfall, in millimetres

Station	Average	Max.	Min.	No. of Years
Maseru	637.5	1 119.4	428.5	49
Botšabelo	964.7	1 622.6	614.6	14
Mohale's Hoek	715.8	1 142.2	458.2	55
Mafeteng	755.7	1 056.4	515.1	47
Roma	809.8	1 201.9	561.3	13
Thaba Bosiu	735.8	1 146.8	437.8	10
Thabana Morena	670.0	901.2	465.1	11
Leribe	845.0	1 343.2	563.1	53
Quthing	791.7	1 197.6	443.0	45
Teyateyaneng	706.6	1 102.4	439.7	54
Mpharane	779.5	1 149.1	547.6	25
Tosing	753.1	1 114.6	410.2	23
Butha Buthe	818.6	1 153.2	545.1	33
Tsoelike	571.8	852.2	356.9	18
Thaba Thelle	630.4	1 017.3	434.8	7
Mashai	529.8	769.1	374.4	18
Repases	501.9	818.1	339.6	22
Sehonghong	578.1	908.6	373.9	15
Qacha's Nek	927.9	1 426.7	574.0	55
Marakabei	910.6	1 196.8	540.2	12
Bokong	668.0	1 097.0	463.6	18
Lelingoanas	562.4	814.3	414.5	17
Makheka	677.2	821.7	534.2	16
Motheresoane	662.7	931.2	469.9	15
Mokuiniki	605.0	830.3	450.3	16
Meno	769.4	1 438.7	539.0	14
Mokhotlong	560.3	705.6	406.7	21

TABLE 8

Crop and Animal Husbandry: Gross Value of Production 1954/55 to 1965/66

	1954/55	1955/56	1956/57	1957/58	1958/59	1959/60	1960/61	1961/62	1962/63	1963/64	1964/65	1965/66
Maize	2,845.7	2,251.3	2,955.3	3,017.9	3,030.0	2,781.2	3,192.0	3,307.2	3,189.5	3,341.5	3,113.6	2,907.5
Wheat	1,063.2	1,167.1	1,308.5	1,304.7	1,189.9	1,223.6	1,380.0	1,451.6	1,390.8	1,426.0	1,759.6	1,768.2
Sorghum	1,110.0	1,883.2	1,636.1	1,606.1	1,269.4	1,330.7	1,563.0	1,465.6	1,846.8	1,579.2	1,463.0	1,506.8
Beans and peas	678.1	768.0	692.4	759.9	839.6	748.2	543.2	685.7	917.7	803.3	823.0	888.2
Barley	68.7	69.3	71.2	93.4	66.4	86.9	80.3	86.3	66.0	71.1	65.1	68.0
Vegetables	693.0	637.4	749.9	819.0	763.9	742.2	823.4	850.6	799.0	863.3	854.0	819.6
Fruit	447.2	542.2	564.4	500.0	542.0	634.5	485.0	721.2	605.6	487.7	535.0	657.3
Other	21.8	23.2	25.2	25.6	24.2	23.3	25.5	26.4	28.0	27.3	27.3	27.0
Total crop husbandry	6,927.7	7,341.7	8,003.0	8,126.6	7,725.4	7,570.6	8,092.4	8,594.6	8,843.4	8,599.4	8,640.6	8,642.6
Wool	1,746.3	1,462.7	1,832.8	1,264.5	908.1	1,077.8	1,057.5	1,099.5	1,336.5	1,559.0	1,219.1	1,288.3
Mohair	441.9	493.5	537.0	580.5	571.3	775.6	682.2	761.7	742.0	844.9	771.0	792.1
Hides, skins and bones	77.0	74.0	76.3	53.1	45.4	68.2	70.2	54.6	33.0	46.9	36.7	63.0
Cattle exported	179.1	360.9	197.0	302.2	346.2	413.1	332.9	250.6	393.7	460.6	443.8	452.5
Cattle consumed	379.9	384.1	316.4	224.8	390.6	388.6	438.6	372.5	658.7	581.5	644.6	715.9
Sheep and goats exported	14.8	33.8	32.2	35.7	22.5	22.5	15.3	12.6	11.3	20.0	38.3	96.3
Sheep and goats consumed	173.3	292.0	287.1	268.0	213.1	187.8	207.5	253.5	260.9	217.1	322.3	397.8
Other livestock exported	0.4	2.0	1.4	0.7	1.1	9.5	0.7	0.7	1.9	1.1	6.3	4.7
Other livestock consumed	53.8	60.4	58.2	42.9	70.2	66.0	61.6	44.7	71.0	81.9	96.4	110.5

TABLE 8 (Continued)

	1954/55	1955/56	1956/57	1957/58	1958/59	1959/60	1960/61	1961/62	1962/63	1963/64	1964/65	1965/66
Milk	686.9	761.6	836.4	1,049.7	804.5	1,047.8	955.5	1,027.8	834.7	951.0	965.9	983.1
Poultry products	169.5	178.4	174.5	186.3	189.0	187.3	192.9	200.0	201.7	202.5	216.8	223.2
Changes in live-stock	13.0	38.2	-118.8	-122.7	-64.6	169.0	-363.2	280.9	208.8	-69.6	-350.4	389.1
Total animal husbandry	3,945.9	4,141.6	4,230.5	3,885.7	3,497.4	4,413.2	3,651.7	4,362.1	4,754.2	4,893.8	4,410.8	5,516.5
Gross value of production in Agriculture	10,967.6	11,582.0	12,335.9	12,121.3	11,338.8	12,104.7	11,865.8	13,083.6	13,735.8	13,638.5	13,207.2	14,330.2

Source: Africa Institute

TABLE 9

Gross Fixed Capital Formation by Type of Industry, Organization
and Asset, 1954/55 to 1965/66 — (R1000)

	1954/55	1955/56	1956/57	1957/58	1958/59	1959/60	1960/61	1961/62	1962/63	1963/64	1964/65	1965/66
A Type of Industry												
1. Agriculture and Mining	86.0	88.5	91.7	93.6	94.0	105.7	100.4	144.6	181.6	150.1	158.4	168.2
2. Manufacturing and Construction	5.5	5.7	8.1	6.5	8.9	8.6	32.6	18.7	14.5	16.9	34.5	65.5
3. Electricity	21.0	12.7	9.2	15.9	35.1	33.0	21.7	75.9	126.2	82.4	20.3	20.4
4. Water	5.2	4.9	16.4	16.1	29.9	43.2	24.9	84.5	43.8	2.5	6.2	15.8
5. Transport and communications	16.9	12.1	11.1	16.2	27.5	23.3	120.9	104.2	117.1	57.3	122.5	151.6
6. Wholesale and retail trade	126.6	157.0	106.2	350.5	220.2	216.8	93.5	412.5	209.1	339.9	301.1	231.0
7. Financial institution	8.8	11.2	9.4	18.8	23.6	21.2	11.8	5.8	8.3	19.1	17.0	29.4
8. Home ownership	308.9	318.5	325.9	331.2	345.8	445.5	456.5	469.8	489.6	498.3	516.3	534.9
9. Government services	499.8	547.0	534.7	600.5	686.3	939.5	695.5	1,501.4	1,172.8	825.9	1,245.5	1,775.9
10. Education	177.5	221.7	415.8	439.8	430.5	427.7	326.7	247.6	360.9	302.7	438.6	692.8
11. Health	73.7	58.0	184.8	245.8	143.7	180.5	208.1	225.9	213.0	171.3	318.7	180.9
12. Other services	110.0	118.2	177.3	188.9	168.2	201.5	240.6	250.2	238.6	209.9	370.8	430.8
Gross fixed capital formation	1,439.9	1,555.5	1,890.6	2,323.8	2,213.7	2,646.5	2,333.2	3,541.1	3,175.5	2,676.3	3,549.9	4,297.2

TABLE 9 (Continued)

TABLE 10
Government Territorial Income and Recurrent Expenditure (in R'000)

Revenue Head	Receipts		Expenditure Head	Expenditure	
	1968/69	1969/70		1968/69	1969/70
Taxes	1,481	1,731	Ministry of Agriculture	915	970
Customs and Excise	1,916	3,404	Ministry of Education	2,272	2,244
Post and Telegraphs	408	459	Ministry of Finance	797	910
Licences and Duties	418	458	Ministry of Health and Social Welfare	1,114	908
Fees of Court and Office	142	123	Ministry of Interior	599	743
Judicial Fines	64	62	Ministry of Justice	411	373
Earnings of Ministries	668	528	Department of Prisons	328	321
Interest	36	65	Prime Minister	490	550
Rent from Government Property	175	175	Police Force	1,178	1,314
Miscellaneous	319	398	Ministry of External Affairs	349	337
Re-imbursements	5	17	Ministry of Works and Communications	845	828
Total	5,652	7,420	Government Garage	7	—
Deficit	5,570	4,901	Department of Electricity	144	—
			Ministry of Posts and Telecommunications	379	464
			Department of Audit	35	43
			His Majesty's Office	23	20
			National Assembly	107	84
			Public Service Commission	26	22
			Senate	58	44
			Consolidated Fund Services	1,165	1,216
	11,222	11,421	Total	11,222	11,421

TABLE 11
Exports 1966, 1967 & 1968
R.000

S.L.T.C. Division	1966	1967	1968
00 Cattle	464	1,202	1,101
Sheep	60	32	102
Other Live Animals	18	8	39
04 Wheat	57	33	179
05 Peas and Beans	124	462	161
Other Foodstuffs	5	35	24
21 Wool	1,861	881	873
Mohair	943	377	425
Hides and Skins	94	98	79
27 Diamonds	697	1,017	376
Other Crude Materials	6	16	11
Other Exports	58	7	10
Total	4,387	4,168	3,380

TABLE 12
Imports 1966, 1967 & 1968
R.000

S. I. T. C. SECTION	1966	1967	1968
0 Foodstuffs and Livestocks	6,431	4,584	4,624
1 Beverages and Tobacco	626	863	837
2 Crude Materials	353	441	388
3 Mineral Fuels & Lubricants	1,036	1,605	1,153
4 Animal and Vegetable Oils	174	154	126
5 Chemicals	1,280	1,740	1,702
6 Manufactured goods classified chiefly by materials	5,740	5,314	5,215
7 Machinery and transport equipment	2,038	2,495	2,557
8 Miscellaneous Manufactured goods	4,019	5,384	6,116
9 Commodities n.e.s.	1,220	1,220	1,220
TOTAL	22,917	23,800	22,938

Source: Bureau of Statistics

TABLE 13**Ownership of Pre-University Educational Institution in 1968**

Type of ownership/ Management	Primary Schools	Number of Secondary Schools	Teacher Training Schools	Technical and Vocational Schools
Government Managed and Financed	4	1	—	1
Committee Controlled	7	3	—	—
Aided Missions	1017	22	7	4
Unaided Missions	96	1	—	15
TOTAL	1124	27	7	20

TABLE 14**Number of Primary Schools, Total enrolment and Teachers 1963 to 1968**

Year	Number of schools	Total enrolment (in '000)	Total number of Teachers	Teacher/ pupil ratio
1963	1049	156	2579	1 : 60
1964	1051	164	2647	1 : 61
1965	1073	168	2943	1 : 57
1966	1078	167	2827	1 : 59
1967	1077	168	3065	1 : 55
1968	1124	179	3419	1 : 52

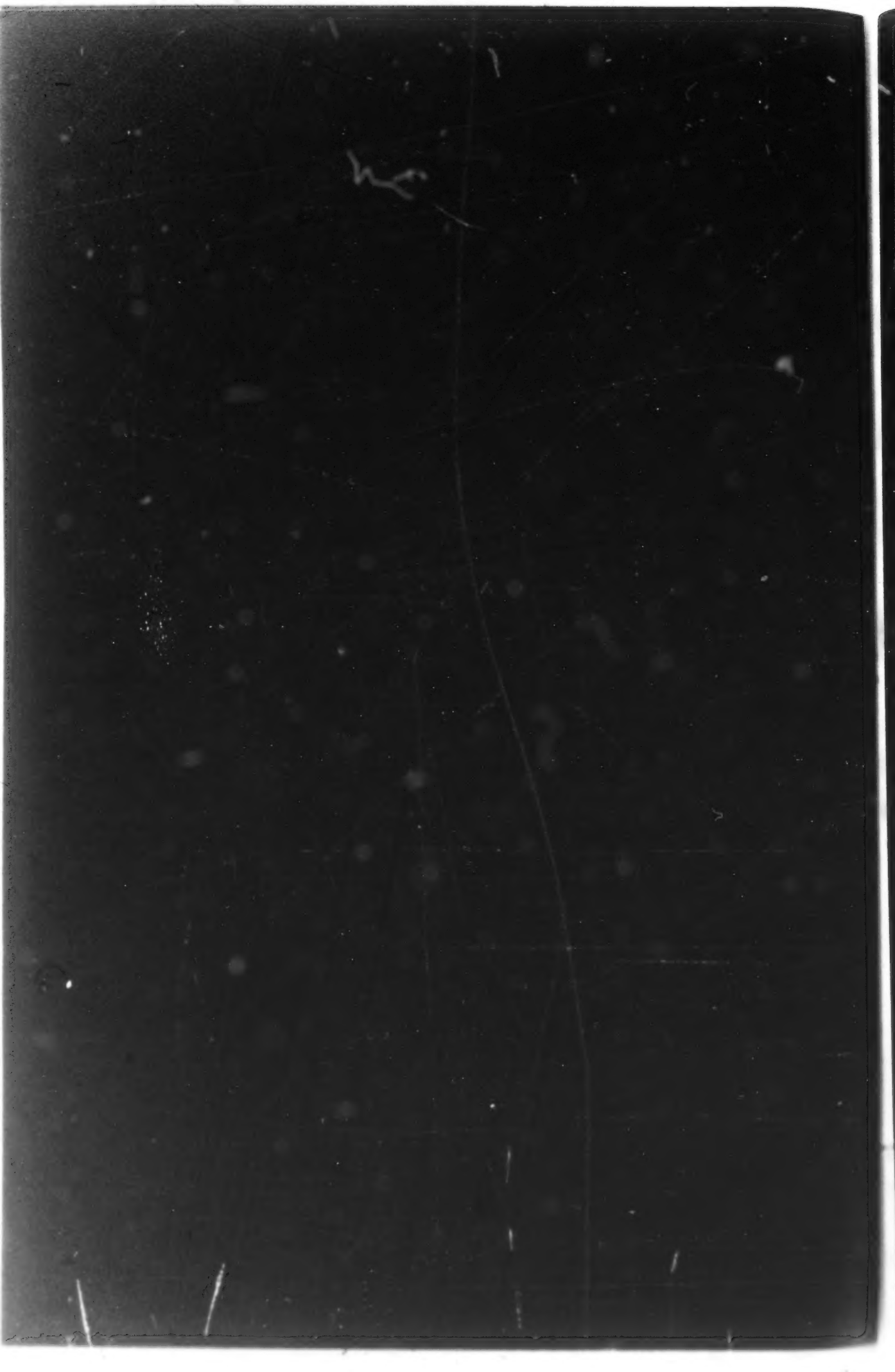
Source: Ministry of Education

TABLE 15
Distribution of Health Facilities

District	Medical officer	Persons per M.O. ('000)	Nursing Staff	Persons per Nurse/Sister ('000)	Hospitals	Hospital beds	Persons per hospital bed ('000)	Health Centres	Dispensaries	Out Stations
Butha	1	55	10	5	2	182	0.3	—	1	6
Buthe	3	46	18	8	2	119	1.2	8	94	5
Leribe	5	20	15	7	2	180	0.6	1	6	4
Berea	13	14	83	2	5	639	0.3	10	12	9
Maseru	2	51	14	7	1	100	1.0	6	2	5
Mafeteng	1	9	9	11	1	68	1.4	4	2	2
M. Hoek	1	65	8	8	1	52	1.3	3	1	—
Quthing	2	28	16	4	2	54	1.0	8	1	1
Q. Nek	1	55	6	9	1	46	1.2	2	2	3
Mokhotlong	5	—	20	—	—	176	—	—	—	—
Unallocated	34	25	199	4	17	1,616	0.5	42	31	35
Totals and averages										

Source: Ministry of Health

MAPS



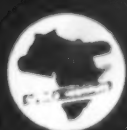
LESOTHO

MASERU

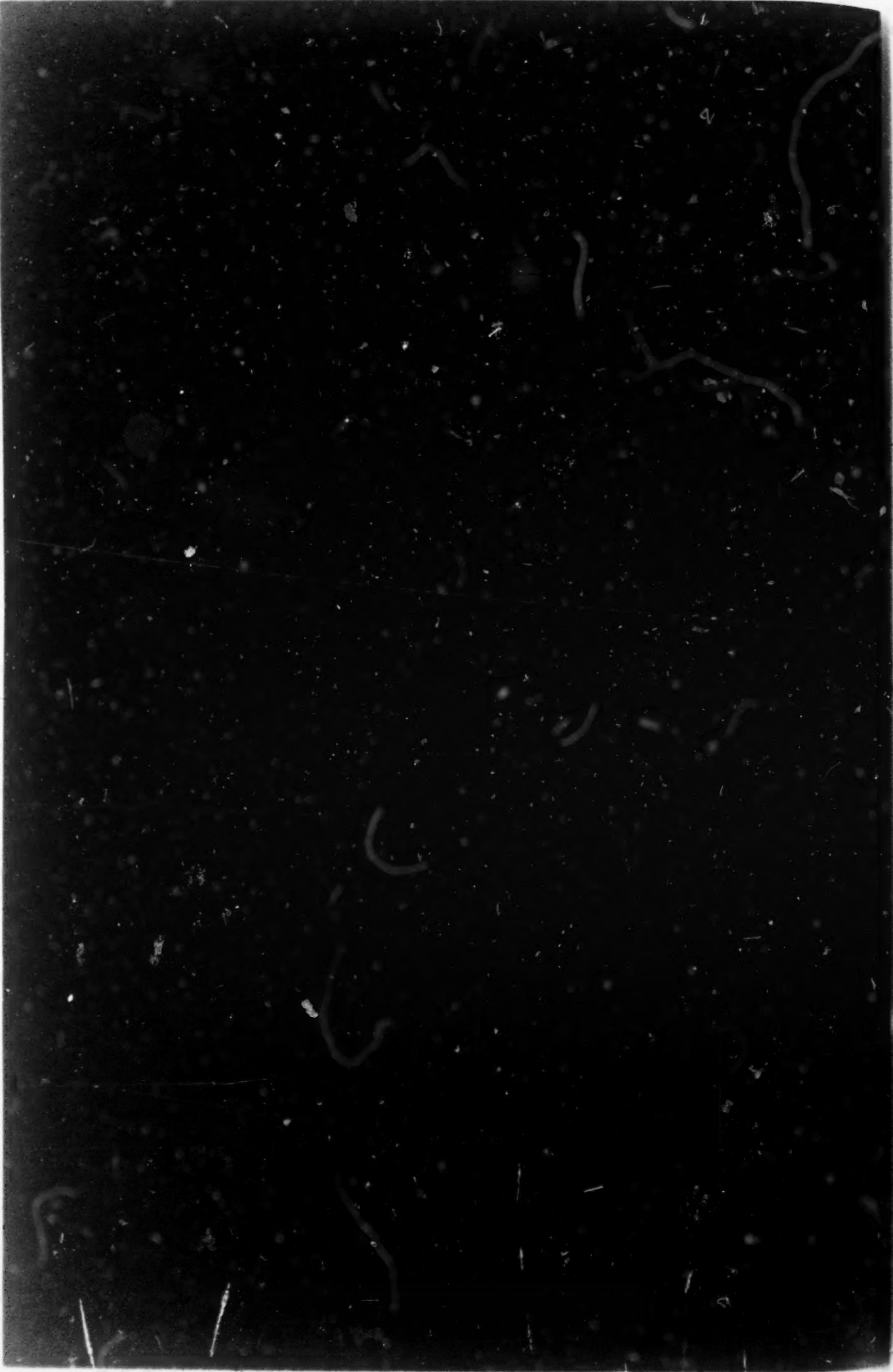
POPULATION DENSITY

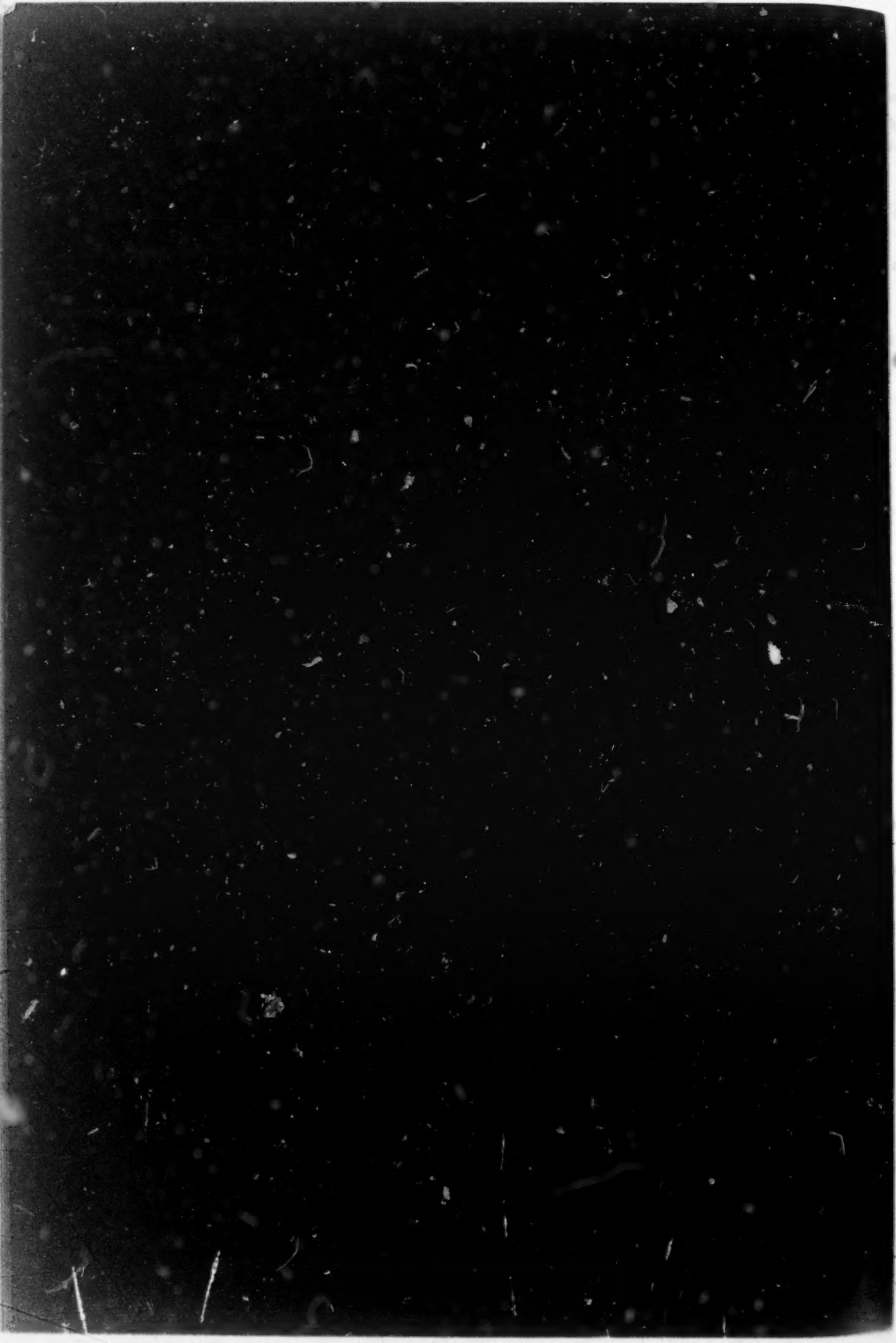
Persons per square mile

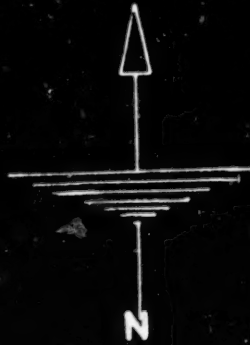
	0-50
	50-100
	100-150
	150-200
	200+



0 10 20 miles







SECONDARY SCHOOLS IN LESOTHO

▼ Secondary School



MAP OF LESOTHO



LESOTHO FOOD AID PROGRAM ACCESS TRACK DEVELOPMENT



FOOD AID PROGRAM ACCESS TRACK DEVELOPMENT



FOOD AID PROGRAM ACCESS TRACKS

1. Mantsonyane — Thaba Tseka — Mohlanapeng — St. Theresa — Mashai — Matebeng — Sehlaba-thebe — Natal Border.
Section Mashai — Sehlaba-thebe Under Construction *
2. Mt. Moorosi — Makoe — Mphaki — Sekakes. Improvements to Track. *
- 2a. Maroe — Ongeluk's Nek. Improvements to Tracks *
3. Moteng — Ox-Bow — Lekhalo-La-Lithunya — Letseng-La-Terae — Tlokoeng — Mokhotlong — Sani-Pass. —
4. Lekhalo-La-Lithunya — Kao — Letele — Pitseng Road open but further construction required. *
5. Kao — Lihobong — Lemphane — Lqalaneng. Under Construction.
6. Mokhotlong — Rafolatsane — Molomong — Menoaneng — Linakeng Mokunupane Under Construction.
7. Tlokoeng — Makhoaba — Toebe — Methalanong Letele Under Construction.
8. Toebe — Semona — Thaba-Tseka Under Construction
9. Seaka — Phamong — Ntaote Under Construction
10. Matebeng — Tsoelike To Be Constructed.
11. Matsaile — Mohlanapeng
12. Rama's Gate — Hilltop — Tsoelike Indicates Machinery used Under Construction *